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Research Paper

Examining the quality of accounting data regarding reports from Hungarian MSMEs engaged in commercial activities

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Abstract: The present study examines the estimated accounting quality of micro, small and medium-sized enterprises (MSMEs) engaged in commercial activities in Hungary. The study uses empirical methods to measure discretionary accruals derived from total accruals of the Modified Jones model of Dechow et al. and evaluates the quality results obtained according to the auditability of the sample items and other control variables. Based on our empirical findings, it appears that audited firms exhibit reduced levels of accounting quality distortions relative to non-audited firms. To conduct more rigorous domestic analyses, we propose creating a model to measure accounting quality. The model should be developed and specified within the domestic accounting environment, and its potential relationship with various accounting and financial performance issues should be explored.

Keywords: accounting quality; creative accounting; discretionary accruals; earnings management; earnings quality; Hungarian MSMEs

1. Introduction

In our study, we interpret, examine and measure the quality of accounting reports, since nowadays quality accounting reports can be defined as important elements of decision-making and information provision in economic life, and also as a general representation of the interests of the profession. Why is it important to examine the quality of accounting information and how it is changing? Firstly, because it is essential for the proper functioning of a market economy that the information needed by market participants is available in a timely, qualitative and systematic manner. On the other hand, the worldwide rise of accounting scandals (Enron, WorldCom, Parmalat, Saytam, Merck, Tyco International) in the early 21st century highlighted potential quality problems in financial reporting. As a consequence, the importance and exploratory role of scientific studies aimed at determining the quality of data from accounting reports has been enhanced. During more than forty years of research on accounting quality and on the theory of accounting reporting data quality, a number of methodologies have been identified by researchers dedicated to the subject: these provide an analytical basis for the quality analysis of accounting reporting data for listed companies. However, this analysis is even less widespread in the field of micro, small and medium-sized companies.

In our study, we focus on the quality analysis of annual reports of MSMEs, given that they represent 99.7% of the enterprises in Hungary and that many governmental and EU financial support flows to these enterprises, thus supporting the growth of their revenue generating capacity even in times of economic difficulties (Hegedűs, 2023). Our aim is to investigate the quality of the annual reports published by the enterprises engaged in commercial activities from an accounting perspective and look into the changes that can be associated with quality. To measure this, we chose the Modified Jones (Dechow et al., 1995) model from among the models developed and tested over the past 35 years.

We use a regression-based measurement model to examine whether the quality of data in audited annual accounts is higher than that of companies whose accounts are not audited, and for this purpose we use a constructed sample.

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2. Literature review

2.1. Information systems

Accountancy has existed for millennia, with its roots traceable back to over 7,000 years to ancient Mesopotamia. During this era, people embraced accountancy as a means of recording crop and stock growth. Since then, accountancy developed significantly and has become an essential element of commercial activity.

The interpretation of accounting differs among academics, researchers, and professionals depending on whether accounting is approached from a practical or scientific perspective. The majority of definitions have approached accounting as a business function, as record keeping, and as a practical activity. Consequently, definitions consistently characterize accounting from a micro-level perspective.

Budai's (2009) study begins with information needs and defines accounting as a science, profession, and regulatory activity that operates at global, macro, and micro levels. The global level pertains to the entire world, the macro level to specific countries, and the micro level to individual enterprises and corporate functions. Figure 1 provides a visual representation of these interrelated parts.

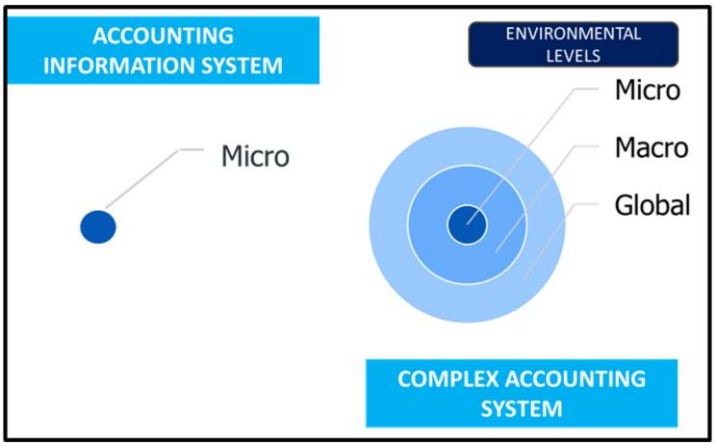

Figure 1. The complex accounting system, environmental factors. *Source: Budai et al. (2021)*

To increase the comprehensibility and visibility of the accounting system, modelling takes centre stage. Modelling is a technique used to simplify the unknown into the known, which facilitates studying a phenomenon via another phenomenon in cases when we possess adequate knowledge (Sasvári, 2003). Consequently, the accounting system is a complex model.

The model's complexity lies in its definition of four dimensions of meaning at each level (see Figure 2). These include practical activity, regulation, education, and research. These dimensions of understanding are based on basic information needs.

Figure 2. Interpretative aspects of the complex accounting system. *Source: Budai et al. (2021)*

Each level of interpretation comprises the following components: the system, the individuals, the institutions, the equipment and its systems, as well as the connections and networks.

Research into the quality of accounting reporting requires a system approach. This approach should be implemented in studying the quality of accounting reporting. This system approach, that is, the research of the system itself, could provide a structured framework for the research as well as could be used both to identify areas that have received less attention and to characterise areas that have been researched more extensively. This requires the model of the complex accounting system (Figure 3).

In the complex accounting system, the place of the accounting report is in the column of the practical activity at the micro – company level – since it is the aggregated end result of the practical activity.

In relation to the product of the practical activity (the accounting report), the following general characteristics can be formulated. The accounting report is:

- governed by different accounting frameworks, the degree of restrictiveness of which determines the accounting quality displayed by enterprises;
- is presented in a formalised way, it was initially published on paper and is now published in an electronic format using a software application;
- "branded", as the company's name appears on each page, and so do the name of the accounting firm and the accountant;
- individual company accounts are available free of charge in most countries and can be used free of charge, but the various databases produced from the data typically have to be paid for, which can make it much more difficult for accounting quality researchers to work with a large sample.

The general characteristics are also applicable to small business accounts, but additional specific characteristics can be identified. Such characteristics include:

- they are not prepared under IFRS;
- they have a more simplified structure;
- they are generally not audited;
- have a narrower scope of information.

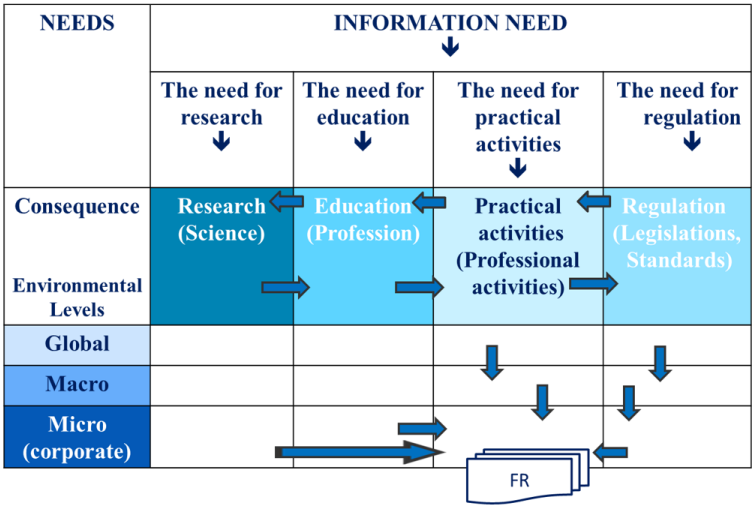

Figure 3. Financial report in the complex accounting system. *Source: Budai et al. (2021)*

In summary, it is an element of the system that is outside the accounting system, but is also used in this system, i.e., within the company and within the framework of other systems. The framework allows for a systematic overview and analysis of the systemic factors affecting the preparation and quality of the accounts.

2.2. Accounting quality

The quality of the accounting information system refers to the fact that this overall system represents a level of quality that determines a high level of faithful representation of the prepared accounts – i.e., their unbiasedness –, their relevance and other quality-enhancing factors (comparability, timeliness, verifiability, understandability) through the value of the information provided.

There is a growing demand for quality information from governments, businesses, analysts, academics, investors and other stakeholders. The availability of high-quality information supports the decision-making process and allows for the analysis and assessment of risks (International Accounting Standards Board [IASB], 2018). The lack of information and asymmetry of information can lead to misleading and unprofitable decisions. As a result, it is important to periodically scrutinise and maintain the quality of companies' reporting. The quality of accounting and financial reporting can be assessed using mathematical and qualitative theoretical models and derived indicators.

2.3. The quality of accounting reports

What exactly do we mean by accounting quality? It is not an explicit concept, nor is it a directly observable characteristic – as in the case of an accounting information system –, but it requires estimates and filtering according to several criteria. Hence there are several approaches: either theoretical or practical. These have examined the issue of quality from the perspective of users through the value relevance of published data (Uwuigbe et al., 2017), or from the perspective of regulatory compliance through discretionary delimitations (Chowdhury et al., 2018). The ideal case would be one where both regulatory compliance and meeting user expectations are simultaneously focused on. Given that the information needs of regulators and users are different, it is not possible to address these needs simultaneously.

In our research, we reviewed the literature on the quality of accounting reporting published between 2002 and 2023, and collected the literature on the emergence of accounting reporting quality. The search is based on articles published in online databases, which were conducted using the search terms "the emergence of accounting quality" and "accounting reporting quality". The search resulted in several hundred articles, of which the most relevant quality findings are summarised in Table 1.

Table 1. The concept of accounting quality as defined by certain authors. *Source: Authors' own*

Author(s)	The appearance of accounting quality
Dechow & Dichev, 2002	Accounting quality/earnings quality is related to the magnitude of the accrual-based estimation errors.
McNichols, 2002	Earnings quality is understood as the relationship between accruals and cash flows.
Dechow & Dichev, 2002	Identifying the quality of accounting with the quality of accruals.
Barth et al., 2008	The accounting quality shows less income smoothing, more timely loss recognition, and a higher matching of net income to book equity.
Dechow et al., 2010	Accounting quality depends on market effects.
Corina & Nicolae, 2012	The quality of the accounts is determined by the parts of accounting reports: the balance sheet, the income statement and the notes.
Isidro & Raonic, 2012	Accounting quality should be defined so that revenue measures economic performance.
Fan & Zhang, 2012	The accounting system affects the quality of accounting information.
Nanda & Wysocki, 2011	The quality of accounting is influenced by the legal culture of the country.
Hribar et al., 2014	Increased control efforts will improve the quality of accounting.
Achim & Chiş, 2014	Accounting quality can be defined as the accuracy with which investors receive information about their assets and future cash flows.
Stenheim & Madsen, 2017	Accounting quality is a measure by which accounting information can be assessed.

Based on a broad review of publications, there does not appear to be a single interpretive approach or explanation of what constitutes accounting quality in financial reporting; however, definitions may be similar in their content. There are several similar, synonymous or seemingly synonymous but only partially converging terms in the literature. The definition of accounting quality was defined in the publications according to the research design/concept. The research concluded that when discussing the quality of financial reporting, the quality of reporting is generally identified with the quality characteristics as formulated by the IASB. Some of the above definitions refer to the IASB's discussion of quality as a measure of decision usefulness that improves the quality of financial reporting (FRQ). Pacter (2016) acknowledges that 'high quality' accounting information is the lifeblood of the capital market.

The IASB's mission is to create transparency by improving the international comparability and "quality" of accounting information, enabling investors and other market participants to make economic decisions. The literature shows that many researchers identify accounting quality with accrual quality, which leads to the study of earnings management. Based on this, in our current research we examine the change in quality of the accrual components of total accruals over time to determine accounting quality across different periods. According to some researchers, legal culture, controls (auditing), future cash flows are those factors that determine the quality of accounting reporting. Certain literature identifies the quality of accounting with compliance with the principles and considers it to be of quality if it contains reliable and true information on the financial, income and asset position of the company concerned. In summary, the IASB's classification of quality is the starting point for the literature review, and researchers add additional factors and characteristics to these qualities.

2.4. Factors influencing the quality of accounting

Accounting regulations and legal requirements vary from country to country and from territory to territory, setting out the formal and substantive framework for the preparation of financial and accounting statements. However, it can be observed that the primary objective of the creators of each set of rules and standards is to define the rules in a fully delimited manner, thus ensuring that the information resulting from the accounting information system is not distorted for the parties concerned. However, neither within the framework of the Hungarian Accounting Act, nor within the system of the various international accounting standards (US GAAP, IFRS), it is not possible to create such a completely closed system without considering the legal structures of the accounting system that would not allow the entity subject to the accounting regulation to exercise accounting influence up to a certain level. These so-called "loophole" manipulations are aimed at altering the content of annual reports, statements and financial statements, thereby changing the reliability, veracity and value of the information provided to stakeholders and such manipulations can also lead to the very negative effects of information asymmetry.

There is an expanding body of literature and a large number of researchers examining and characterising these phenomena both domestically (Lukács, 2007) and internationally. The most well-known terms associated with accounting influences are creative accounting and earnings management.

2.5. Earnings management

In the literature on earnings management, as a method of measuring accounting quality, authors have different interpretations of various factors. One reason for this is that because the analysis has a huge spectrum, each researcher tries to design their model in a way that yields an outcome that best explains the chosen topic. It is therefore impossible to determine what is the best metric for measuring quality among those presented in the literature. Another problem in the literature is the focus of the researchers' analysis. Accounting quality/earnings quality depends on both the financial performance of the company and the accounting system that measures it. There is little empirical evidence on how core performance affects earnings quality. Across the literature as a whole, there is no earnings quality model that is better than any single decision model used for every decision situation. But what do we call income quality and income management?

Davidson et al. (1985) define earnings management as taking deliberate steps within the constraints of generally accepted accounting practice to achieve a desired level of reported income. Similarly, Healy and Wahlen (1999, p. 368) note that:

"Earnings manipulation occurs when managers use judgment in financial reporting and in structuring transactions to alter financial statements in order to mislead individual shareholders about the company's economic performance or to influence contractual outcomes that depend on the reported accounting number".

By definitions, earnings management is possible because managers have discretion in the preparation of financial statements. However, this is restricted to the limits set by accounting standards/accounting law. Thus, any change in the extent or degree of management discretion permitted by the accounting standards may change the extent of revenue recognition.

Several situations exist that can incentivise management to engage in revenue management. Researchers provide evidence that managers have a strong incentive to manage revenue/income:

- to maximize bonuses and compensation (Teshima & Shuto, 2008);
- to avoid debt risk violations or to reduce debt costs (Jaggi & Lee, 2002);
- circumvention of industrial and other laws and regulations (Monem, 2010);
- in order to meet earnings forecasts and targets issued by financial analysts or management (Jaggi et al., 2006);
- and also to maximize their revenues from initial public offerings (IPOs) (Teoh et al., 1998).

In summary, earnings management is the targeted intervention in external financial reporting by changing accounting practices to achieve revenue targets. It is, however, an activity that is done without violating accounting regulations, and takes advantage of the possibility to apply certain decisions independently based on the requirements of the accounting regulations, as described in the accounting policies in the accounting information system. This action does not necessarily lead, but may in fact lead, to the deception of stakeholders by making them believe that the financial information they will want to use to make decisions are correct.

3. Methodology

The sample, defined by the research area and necessary for the empirical analyses was collected from several sources. The balance sheet and income statement data were taken from the Scholar database of Céginformáció.hu. It was possible to implement a query on a scale of 1,000 per firm at 5-year intervals.

Table 2. Control variables for the regression equation. *Source: Authors' own*

Variable name	Source	Source of data	Calculation method
AGE	Myers et al. (2003)	Extract from trade register	Age of the company
GROWTH	Ames (2013)	Income statement	ΔSales revenue
LEV	Lang et al. (2003)	Balance sheet	Total liabilities / Total assets
LIQ	Caramanis & Lennox (2008)	Balance sheet	Current assets / Current liabilities
NEG_EARN	Jara & López (2007)	Income statement	1 if taxable profit is negative; 0 in all other cases (dichotomous variable)
SIZE	Cheng & Warfield (2005)	Balance sheet	ln (Total assets)

The data collected were subjected to random checks on a random sample basis, matching the data from the report available on https://e-beszamolo.im.gov.hu. 450 companies (2%) were examined in the scope of the entire database. No discrepancies were found. Items

other than the reporting data, which are essential for the analysis (e.g., data in the supplementary annex), were included in the survey.

Control variables were included in the analysis and are presented in Table 2.

These selected variables were identified in the literature review of the studies consulted. Typically, such variables have been based on the financial data of individual companies in an attempt to identify the impact of other factors affecting the quality of accounting reports.

3.1 Selection criteria

Prior to selecting the sample, we had to define the selection criteria that would be used to select the firms to be included in the sample. The choice of parameters was influenced by both the number and the nature of the questions to be asked, which thus reduced the number of firms that could be included in the study. Before the selection criteria were set up, the number of firms to be tested was 454,722, all of which are registered in Hungary – a criterion included in the default setting of the database. The aim was to get as large a sample as possible. The specific selection is as follows:

1. A company registered in Hungary. This restriction serves the geographical delimitation of the research.
2. Non-listed companies.
3. Established before 2018, which ensures that they are not newly-established but already established entities – with a history –, and that several years of accounts are available for analysis.
4. In corporate forms: limited partnership (Bt.), limited liability company (Kft.), private limited company (Rt.).
5. Only active enterprises with an active status and not in the process of being liquidated. Companies with inactive status or companies in the process of being wound up are also excluded. This filtering was necessary in order to apply the going concern principle.
6. The number of employees in the enterprise is below 250 in all six years under review.
7. Their financial statements are prepared in accordance with the Hungarian Accounting Act (Act C of 2000 on Accounting) and Government Decree 398/2012 (XII.20.). In order to ensure comparability, I consider it necessary to analyse the reports prepared under the same reporting framework. The accounting framework chosen for the analysis is the Accounting Act, as individual accounts prepared under the Accounting Act are still predominant among the MSMEs in Hungary.
8. They are included in the MSME sector.

The Table 3 provides a summary of the reduced sample selection for the analysis. There might be overlaps between the criteria.

Table 3. Sample narrowing in pieces. *Source: Authors' own*

Number of companies sampled	**454 722**
Number of excluded companies	432 549
Of which:	
Company not registered in Hungary	0
Not a listed company	0
Not incorporated before 2018	204 920
Not incorporated as a Bt., Kft. or Rt.	218 602
Not an active enterprise with active status	213 798
Number of employees not below 250 in the years under review	67 470
Not belonging to the MSME sector	41 883
Final sample	**22 173**

3.2 Models used to measure accounting earnings quality

Accounting quality modelling is based on management influence to achieve changes in the earnings. In early models, these manipulations were examined on the basis of accruals accounting, which means that the effect on profit or loss of any item is accounted for on the basis of the performance of economic events, irrespective of financial realisation.

Two types of accruals are mentioned in the literature: one is the so-called normal/non-discretionary accruals and the other is the discretionary accruals. Changes that can be linked to managerial interest are called discretionary accruals, and still non-discretionary accruals refer to influence from the legislative, regulatory side. The combination of these two components constitutes the total degree of accruals.

Since the mid-1980s, the incentives for managerial coordination have been the subject of accounting studies, which focus on the quantification of managerial influence on an empirical basis (Healy model, DeAngelo's model (1986), Jones model (1991), Modified Jones model).

Jones model (1991)

Jones's model (1991) – long debated in the literature – takes as its starting point and actively integrates DeAngelo's model (1986) of change in the current and the preceding periods. If there is a change between the accounting influence of the period under study and the previous period, then a change in the degree of discretionary accruals can be detected, since non-discretionary changes are not discontinuous. Thus, the model confirms Jones' hypothesis that discretionary influences are not constant across firms. The model considers changes in the economic environment of the firm and its impact on influence, as Jones does not consider this to be a completely exogenous factor. The model is based on a measure of total accruals.

The model equation can be written as follows:

$$\frac{TA_{i,t}}{A_{i,t-1}} = \alpha 1\left(\frac{1}{A_{i,t-1}}\right) + \beta_{1,i}\left(\frac{\Delta REV_{i,t}}{A_{i,t-1}}\right) + \beta_{2,i}\left(\frac{PPE_{i,t}}{A_{i,t-1}}\right) + \varepsilon_{i,t}$$

where,

TAi,t = total accruals in year t for company I;
ΔREVi,t = change in revenues of company i in years t and t-1;
PPEi,t = gross property, plant, and equipment in year t for company i;
Ai,t-1 = total assets of company i over year t-1;
εi,t = error term in year t;
i = indices of the enterprises given;
t = indices for the periods under examination;
α, β = company-specific parameters.

The equation for Jones' total accruals can be written as follows based on the model:

$$TA_t = \Delta Current\ Assets_t - \Delta Cash_t - \Delta Currrent\ Liablities_t - Depreciation_t$$

Dechow et al.'s Modified Jones Model (1995)

The first prominent and professionally recognized revision of the Jones model was defined by Dechow et al. (1995): they created the Modified Jones Model, which aims to eliminate the assumed measurement errors of the underlying model on the side of discretionary accruals.

Dechow et al. (1995) have noted that the extent of discretionary accrual is calculated in the base period year, which is impacted by the earnings management conducted by company managers. It must be highlighted that the model's fundamental presumption is that the rate of earnings management should not decline to zero in situations where managerial influence has taken place, thereby revising the assumptions of previous models.

The model equation can be written as follows:

$$\frac{TA_{i,t}}{A_{i,t-1}} = \alpha 1\left(\frac{1}{A_{i,t-1}}\right) + \beta_{1,i}\left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}}\right) + \beta_{2,i}\left(\frac{PPE_{i,t}}{A_{i,t-1}}\right) + \varepsilon_{i,t}$$

where,

TAi,t = total accruals in year t for company i
ΔREVi,t = change in revenues of company i in years t and t-1
$\Delta REC_{i,t}$ = change in receivables of company i in years t and t-1
PPEi,t = gross property, plant, and equipment in year t for company i;
Ai,t-1 = total assets of company i over year t-1
εi,t = error term in year t
i = indices of the enterprises given
t = indices for the periods under examination
α, β = company-specific parameters

The equation for Jones' total accruals can be written as follows based on the model:

$TA_t = \Delta CurrentAssets_t - \Delta Cash_t - \Delta CurrrentLiablities_t + \Delta Short\text{-}termloans - Depreciation_t$

In their 1995 research and modelling, Dechow et al. (1995) identified the methodological inadequacies of the Jones model (1991) and its applicability in measuring earnings management. Their revised model was found to be more suitable for evaluating accounting quality through earnings management in accordance with the international literature.

4. Analysis and results

From the perspective of the MSMEs included in the analysis, we examined whether those companies whose accounts are audited have a lower or higher absolute value of discretionary accruals. We based our investigation on previous research (Becker et al., 1998; Balsam et al., 2003), as much of this research examines the impact of audit characteristics on accounting quality and earnings management. This is so as it is believed that high quality audits constrain earnings management and improve accounting quality. Several characteristics of auditors have been used to measure audit quality including audit specialisation (Balsam et al., 2003), audit fees (Ibáñez & Pechuán, 2011), the effect of audit engagement length (Chung et al., 2005; Carey & Simnett, 2006), audit firm size, (Big4 and other smaller auditors) – as larger auditors were considered more professionally competent (Becker et al., 1998) – and independence (DeAngelo, 1986). The firms included in the study were considered to be subject to audit if the annual net sales revenue of the firm in question exceeded HUF 300 million over two consecutive financial years and if the average number of employees of the firm exceeded 50 on average over two consecutive financial years.

Absolute value of discretionary accruals |DA|	2018		2019		2020		2021		2022	
	Audited	Unaudited	Audited	Unaudited	Audited	Unaudited	Audited	Unaudited	Audited	Unaudited
Minimum	0,001	0,002	0,002	0,003	0,001	0,003	0,001	0,002	0,000	0,002
Maximum	0,145	27,745	0,231	34,621	0,185	42,292	0,132	36,452	0,386	64,511
Median	0,034	0,030	0,036	0,050	0,033	0,043	0,035	0,031	0,031	0,044
Mean	0,033	0,054	0,040	0,081	0,033	0,069	0,035	0,053	0,043	0,088
5%-os trimmed mean	0,031	0,053	0,039	0,079	0,031	0,065	0,032	0,051	0,042	0,087
Standard deviation	0,016	0,456	0,038	0,498	0,022	0,511	0,017	0,443	0,043	0,574

Figure 4. Descriptive statistics for commercial companies |DA| by audited and non-audited companies applying the Modified Jones model. *Source: Authors' own calculations using SPSS software*

Upon examining the descriptive statistics in Figure 4, it becomes evident that in the case of audited reports both the maximum and median as well as the average and 5% trimmed

mean – which represents the average of the central part of the dataset – exhibit lower values regarding the absolute amount of discretionary accruals compared to those reports which are not supported by auditing. The analysis indicates that the data in the audited accounts demonstrates higher quality.

The study investigated the significance of mean differences between the two groups, regardless of whether the reports were audited. Two-sample t-tests were conducted to analyse the data for the financial years 2020 and 2022. The F-test's significance values surpassed the threshold of 0.05 for the model under consideration (0.110 in 2020 and 0.189 in 2022), but the F-test is not significant, which indicates that we can interpret the results of the two-sample t-test. The obtained significance values from the two-sample t-test fall below the threshold of 0.05. Therefore, we can conclude that a significant difference in the quality of accounting statements exists whether or not they are subject to auditing. Additionally, the statistical significance value was below the threshold in the financial years 2018, 2019, and 2021. Consequently, the standard deviation of the mean in the two groups considered is the same. Specifically, in the case of companies with audited accounts and those with unaudited accounts, the discretionary accruals' mean standard deviation is uniform. We need to analyse the significance level of the t-value in the row "equal variances not assumed" based on the result that SPSS provided. In all three financial years, this is 0, which is less than 0.05. Thus, the difference between the means of the two groups is significant. To put it simply, we can conclude that the value of discretionary accruals in the audited accounts is lower, which means that the quality of these accounts is higher in the financial years 2018, 2019, and 2021. Overall, it can be stated that auditing contributes to enhancing the accuracy of financial information presented in the accounts.

We have examined the impact of the variables included in the analysis on discretionary accruals using discriminant analysis. The method applies the effects of control variables. The classification was performed based on the absolute values of discretionary accruals. The relatively high items are classified in the upper 45%, the relatively low items in the lower 45%, and discretionary exclusions that do not belong to either group are classified in the middle 10%.

The target variable is the discretionary accruals in the accounts, on the basis of which three groups have been identified:

- relatively high discretionary accruals,
- relatively low levels of discretionary accruals,
- discretionary delimitation not classified in either of the previous groups.

Reporting data from the first two groups were included in the analysis.

Table 4 demonstrates the classification accuracies and their modifications through the Modified Jones Model throughout the years. Through the inclusion of the fact of audit in the analysis, that is, whether or not the accounts have been audited, the classification accuracy experiences an average increase of 0.2-0.7%. The resulting classification accuracy varies within the range of 65-70%. These findings seem to suggest that the existence of an audit affects discretionary accruals as a profit variable, which leads to their reduction.

Table 4. Accuracy of Model Classification Using the Modified Jones Model.
Source: Authors' own calculations using SPSS software

Classification Table - Utilizing the Modified Jones model			
Year(s)	Predicted (without audit fact) |DA| correct classification	Predicted (by including the fact of an audit) |DA| correct classification	Changes
2018	69.3%	70.0%	0.7%
2019	70.3%	70.9%	0.6%
2020	65.1%	65.3%	0.2%
2021	69.1%	69.4%	0.3%
2022	69.1%	69.7%	0.6%

The study evaluates the Modified Jones Model calculations via linear regression using the "enter method". The analysis includes both the control variables and the variables being

investigated, as previously described. The aim is to ascertain any correlation between these variables and the outcome variable, as per the literature and domestic situation analysis. The results, presented in Table 5, examine the relationship direction, if it is present at all.

Table 5. Variables included in the models through testing the Modified Jones Model.
Source: Authors' own calculations using SPSS software

Variables included in the equation – 2018							
Name	GROWTH	SIZE	LEV	LIQ	Neg_EARN	AGE	AUDIT
B	0.001	0.004	0.001	-9.940E-07	0.005	-0.001	-0.013
Sig.	0.000	0.000	0.000	0.776	0.043	0.000	0.069
VIF	1.272	1.237	1.153	1.000	1.066	1.033	1.135
R²: 0.906							
Durbin-Watson: 1.997							
Variables included in the equation – 2019							
Name	GROWTH	SIZE	LEV	LIQ	Neg_EARN	AGE	AUDIT
B	0.001	0.005	0.001	-9.630E-07	0.007	-0.001	-0.012
Sig.	0.000	0.000	0.000	0.774	0.002	0.000	0.085
VIF	1.271	1.237	1.154	1.000	1.066	1.033	1.135
R²: 0.906							
Durbin-Watson: 1.996							
Variables included in the equation – 2020							
Name	GROWTH	SIZE	LEV	LIQ	Neg_EARN	AGE	AUDIT
B	3.736E-06	0.014	-0.002	-1.669E-06	0.025	-2.107E-06	-0.042
Sig.	0.787	0.000	0.000	0.862	0.000	0.993	0.001
VIF	1.000	1.260	1.087	1.000	1.047	1.059	1.133
R²: 0.900							
Durbin-Watson: 2.000							
Variables included in the equation – 2021							
Name	GROWTH	SIZE	LEV	LIQ	Neg_EARN	AGE	AUDIT
B	1.276E-05	-0.014	0.000	1.467E-08	0.042	-0.001	0.041
Sig.	0.806	0.000	0.018	0.987	0.000	0.005	0.032
VIF	1.001	1.254	1.012	1.000	1.059	1.045	1.137
R²: 0.839							
Durbin-Watson: 1.997							
Variables included in the equation – 2022							
Name	GROWTH	SIZE	LEV	LIQ	Neg_EARN	AGE	AUDIT
B	3.412E-05	0.002	0.007	2.535E-05	0.002	-0.001	-0.004
Sig.	0.012	0.000	0.000	0.000	0.061	0.000	0.070
VIF	1.111	1.365	1.222	1.002	1.054	1.068	1.060
R²: 0.521							
Durbin-Watson: 1.996							

Table 5 displays a negative correlation between the audit and accounts with below-average discretionary accruals, with the exception of FY 2021. As expected, the "presence" of audit resulted in a decrease in discretionary accruals, thereby improving the accounting reports' quality. This relationship lacks significance, with the exception of FY 2021 and FY 2022, as the significance (p) value for this variable exceeds 0.05 for the other fiscal years under investigation. In addition, Table 5 illustrates that five control variables have a significant association with the outcome variable in the scrutinised fiscal years of 2018, 2019, and 2022. There is a significant positive correlation between company SIZE and discretionary accruals, which suggests poorer accounting quality in firms with larger assets. There is a positive significant relationship between LEV and discretionary accruals, whereby companies with higher leverage have lower quality financial reporting, while companies with lower leverage indicate higher quality financial reporting. There is a significant negative relationship between the firm's age and the quality of its financial reporting as measured by discretionary accruals. The study also examined the multicollinearity of the models using the variance inflation factor

(VIF) variable. According to theory, if the VIF value ranges between 1 and 10, then the issue of multicollinearity is not present. The table indicates VIF values between 1 and 1.37 for each examined model, therefore it can be concluded that there is no issue of multicollinearity. Considering that time-series data were analysed in the study, it can be stated that it is important to also investigate autocorrelation. The Durbin-Watson test was employed for this purpose. The autocorrelation assumes values between 0 and 4: this way the risk of high autocorrelation is greater at the extreme values, whereas when 2 is approached, lower autocorrelation risk will appear. In our analysis, the indicator has consistently hovered around the value of two in all five financial years. This suggests a low risk of autocorrelation and, therefore, the result is not distorted by the problem of autocorrelation.

Upon the examination of the model, it becomes apparent that the R^2 value is nearly 1 for the observed periods, excepting FY 2022, which suggests a high predictive capacity of the models. Consequently, an optimistic estimate is applied to fit the linear regression.

5. Conclusions

In our theoretical study, we note the range of meanings attributed to the term 'accounting quality', and how it relates to the quality of data presented in accounting reports. We have found no single definition in our sources, but there is a clear emphasis in the literature on considering accounting reporting data from an audit perspective. The practical applications of our study suggest that companies with audited accounts show lower discretionary accruals. The results of the two-sample t-test indicate a significant correlation between the means of audited and unaudited accounts. With the exception of the year 2021, the association between discretionary accruals and the audit as a variable was negative and insignificant in most cases. Overall, the findings suggest that auditing is likely to enhance the quality of accounting reporting data. However, additional research incorporating detailed datasets and taking into account the cost-benefit comparison principle is required to ascertain the extent to which auditing enhances the quality of accounting data.

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