Abstract: Although financial statements are extremely important to investors in decision-making processes, their reliability can be affected by earnings management (EM) practices, which involve manipulating financial reports in order to achieve managerial benefits. This study explores the relationship between earnings management and firm valuation, based on accounting information’s predictive value, specifically investigating how EM influences the value relevance (VR) of earnings on share price. The research focuses on a sample of audited companies listed on the Bucharest Stock Exchange (BSE) between 2019 and 2021, comprising 62 entities. Using regression analysis, we explored the importance of accounting information for investors following Ohlson’s research and examined the relationship between EM and VR based on Jones’s model. The findings indicate that earnings significantly impact stock prices, highlighting their value relevance in the Romanian stock market. However, the practice of earnings management reduces the value relevance of earnings because it decreases the reliability of the accounting information. The main contribution of this analysis is to provide a fresh perspective on earnings management (EM) within the BVB framework by highlighting its pivotal role in shaping the motivation and behavior of corporate managers.

Keywords: accounting information; earnings; book value of equity; cash flows; earnings management; value relevance; stock price; Bucharest Stock Exchange

1. Introduction

Accounting information plays a key role in how shareholders assess a company’s potential when making investment choices (Nelwan et al. 2020). Both researchers and regulators are increasingly focused on understanding the factors that impact the usefulness of reported earnings in financial statements (Easton and Harris 1991). Earnings and book value of equity are commonly used for company valuation purposes. Potential investors analyze stocks in the market, often relying on financial reports from relevant companies as a key information source. The primary aim of financial accounting is to provide pertinent accounting information to financial statement users, aiding them in making well-informed decisions efficiently. As per the International Accounting Standards Board, financial statements are designed to offer information about a company’s financial position and performance, benefiting a broad spectrum of users in their economic decision making (Lo 2012).

Accounting information is predominantly conveyed through financial figures and includes information on the position, performance, and state of the business. It serves as a valuable tool for all stakeholders involved in the decision-making process (Georgescu et al. 2020).
The primary source of accounting information is the financial statements issued by the entity.

The conventional practice involves presenting an entity’s financial statements through the balance sheet, income statement, and cash flow statement (Sholihah 2013). Data derived from financial statements are prepared in accordance with the relevant applicable regulations and can be considered as a reliable source of information, fostering investor confidence in the decision-making process (Ragab and Omran 2006). Furthermore, information on the financial position, performance, and operating environment of the entity is considered to be the cornerstone of the effective operation of capital markets (Robu and Robu 2016). Financial data must also meet the criteria of reliability and relevance. Reliability refers to the assurance that financial information reported is free of errors and biases. Value relevance refers to the ability of information to support investors in decision-making processes, such as the formulation of projections for past, present, and future events, or the validation or adjustment of previous expectations (Sholihah 2013). Financial data’s importance in the influence of decision making is considered a fundamental aspect of accounting quality (Francis et al. 2004).

Given the significance of financial metrics in shaping a company’s financial portrait by either showcasing earning successes or mitigating earnings losses, numerous researchers have studied the practices of earnings management (Santos-Jaén et al. 2021; Bansal 2023; Kim et al. 2024). Academic literature characterizes earnings management as the extent to which managers employ their accounting discretion to attain specific earnings outcomes (Nelwan et al. 2020). In other words, earnings management has often received negative connotations, with its association with managerial tendencies to opportunistically soften reported earnings to mislead investors. The prospect of faulty information leading to incorrect investment decisions highlights the risk intricately linked to earnings management. Insights into manipulative earnings management expose companies to risky scenarios, such as reputational damage, erosion of investor trust, negative perceptions in markets, or legal penalties. Overall, while earnings management may offer short-term benefits in terms of meeting financial targets or expectations, the associated risks can have far-reaching and detrimental consequences for the company’s long-term viability and reputation.

The literature concerning earnings management has been augmented with empirical findings from diverse countries or regions (Kjærland et al. 2023). Earnings management, the strategic manipulation of financial reports, has a profound connection with stock prices or stock valuation, as evidenced by multiple empirical studies. Rawashdeh et al. (2024) found that in Jordan, earnings management significantly undermines the value relevance of earnings, misleading investors and inflating stock prices artificially. This suggests that investors place undue trust in manipulated earnings, which ultimately leads to a mispricing of stocks. Chai et al. (2023) further demonstrate that in China, external earnings pressure, coupled with management’s tone, can exacerbate the risk of a stock price crash when the true financial health is revealed, indicating that such practices increase market volatility and risk (Chai et al. 2023). Garel (2017) adds that managerial myopia, driven by short-term market pressures, leads to myopic market pricing where stock prices reflect short-term manipulated earnings rather than long-term fundamental value. Earnings management can cause significant distortions in stock valuation, increasing the risk of sudden corrections and undermining investor confidence in the financial markets.

Considering the importance of accounting information for assessing earnings management, research on the Romanian Stock Exchange remains in its nascent stage. This current study seeks to enrich this area by furnishing robust empirical evidence. The Bucharest Stock Exchange (BVB) is Romania’s main hub for trading financial assets like stocks and bonds. It has a rich history, having been established in 1882, then shuttered during the communist period, and finally reopening in 1995 after the fall of communism. Today, the BVB is a cornerstone of the Romanian economy, promoting transparency and the effective use of resources. Currently, the main regulated market of the Bucharest Stock Exchange (BVB) features 83 listed companies. This market is the key venue for trading a range of...
financial instruments, such as shares and bonds, from both Romanian and international entities.

This study contributes to literature with new empirical evidence regarding managers’ motivations and predilection to use earnings management within the framework of companies listed on the Romanian Stock Exchange. This study is driven by the unique characteristics of Romania’s accounting landscape, especially for publicly traded companies. As Romania has transitioned from a centrally planned economy to a market-oriented one, it has undergone numerous regulatory and institutional changes, significantly impacting financial reporting practices. To improve the transparency and comparability of financial statements, Romanian-listed companies have adopted International Financial Reporting Standards (IFRS) (Feleagă et al. 2012). However, the country’s unique institutional setting, marked by a still-developing financial market, evolving corporate governance practices, and inconsistent enforcement, creates a rich environment for studying earnings management (EM) practices. In this context, earnings management is particularly relevant. In Romania, as in many emerging markets, the pressure to meet market expectations and attract investment can lead companies to engage in EM. This behavior can distort a company’s true economic performance, thus affecting the value relevance of its financial statements. Understanding the extent and impact of EM within this context is crucial for investors, regulators, and policymakers who aim to promote a more transparent and efficient market.

This endeavor resulted in a comprehensive analysis of managers’ use of accruals-based earnings management to influence reported results and its implications for decision makers in the Romanian context. The main research question that motivated our research was as follows: How does earnings management influence the share prices of listed companies? The search for an answer led us to delve deeper into the BVB framework and to observe, assess, and quantify the occurrence of financial reporting distortions attributable to accruals-based earnings management. The outcomes of our search bring new valuable information on the relevance of accounting information. The Romanian accounting environment of listed companies, which is characterized by ongoing regulatory changes and the integration of international standards, offers a unique basis for this study. The findings show that earnings have a significant impact on stock prices, underscoring their importance in the Romanian stock market. However, when companies engage in earnings management, the value of earnings tends to diminish, making the financial information less reliable. These insights are not only vital for the Romanian market but also contribute to the broader understanding of financial reporting quality in transitional and emerging economies. The findings shed light on this important topic, targeting the interests of academics, practitioners, investors, and policymakers.

This study contributes to the academic literature on accounting and financial reporting by providing new insights into the impact of earnings management on the value relevance of financial statements in an emerging market context. While much of the existing research has focused on more mature markets, this paper sheds light on the Romanian stock market, which has distinct characteristics and regulatory environments, filling a gap in the literature concerning transitional economies. The findings underscore the critical role of earnings management in shaping investor perceptions and corporate behavior, thereby offering a fresh perspective on how EM practices can undermine the reliability of financial information.

The structure of this study was customized based on the steps we took during the analysis. First, the introductory part outlines the problem framework, underscores the importance of this study, and sets the context for the subsequent analysis. The second section deals with conceptual aspects of earnings management, the significance of accounting information, and highlights important facets of the proposed model for assessing the impact of management activities on the value relevance of financial accounting information for the specified timeframe. The third section encompasses the analysis itself, together with the findings, subsequent discussions, conclusions, delineation of limitations, and outlines potential avenues for future research.
2. Literature Review and Hypotheses Development

One of the prevalent practices influencing the quality of an entity’s financial reporting is attributed to earnings management. Earnings management influences financial reporting by manipulating accounting practices to present information in a favorable light, dissimulating the accuracy of true business performance (Talab et al. 2017).

2.1. Insights on the Nexus between Accounting Information and Market Dynamics

Accounting information refers to data derived from an entity’s accounting records, typically found in financial statements (Sholihah 2013). It serves as the main source of information accessible to the public and various stakeholders, including investors, government bodies, and regulators, aiding them during the decision-making process (Bhatia and Mulenga 2019; Shamki and Rahman 2012). Confirmatory value and predictive power of financial metrics are two characteristics of accounting information that sets its relevance for investors while making decisions (Bhatia and Mulenga 2019; Olugbenga and Atanda 2014). Investors use accounting information for its relevance since it represents the most reliable source that sets the premises for anticipating future developments of stock market values, such as share prices and returns (Ratnaniingrum et al. 2021).

The concept of value relevance of financial statements originated from the studies of Ball and Brown (1968), Bruns (1968) and Barth et al. (2001). By examining the value relevance of financial information, one can observe the relationship between information and stock markets, as well as the ability of financial information to influence share prices and investment decisions (Robu et al. 2014). Value relevance is determined by the capacity of financial statements to reflect the entity’s value (Bin Khidmat et al. 2018). In stock markets, value relevance of accounting information refers to the degree to which financial metrics, such as earnings per share (EPS), book value per share (BVS), and cash flow per share (CFS), are associated with and impact investors’ perceptions of a company’s value and its stock prices (Rawashdeh et al. 2024). These metrics are considered value relevant if changes in these financial indicators correlate with corresponding changes in stock prices, reflecting their importance in market valuation.

In essence, value relevance refers to the degree to which financial and accounting information fulfills the needs of users (Robu and Robu 2016) and can be characterized by its capacity to significantly impact user decision-making processes (Istrate 2016). The primary role of high-quality financial information is to substantially influence the decisions made by users. However, in cases of value irrelevance, the information is not necessarily deemed of poor quality but rather insufficient for meeting the requirements of users (Robu 2021). According to Francis and Schipper (1999), there are four conditions for information to be deemed value relevant. These include its ability to affect stock prices, its inclusion of metrics useful in valuation, its flag-signaling capacity valued by investors to adjust their expectations, and its capability to encapsulate or summarize other information potentially influencing stock prices (Nelwan et al. 2020).

Entities engaged in earnings management often present financial statements that fail to provide a clear depiction of their true performance. This lack of comprehensive information renders the evaluation of an entity less effective. Consequently, the prevalence of earnings management undermines the reliability of the value relevance of financial results (Bin Khidmat et al. 2018).

According to Healy and Wahlen (1999) and Dechow and Skinner (2000), financial statements of entities involved in earnings management are susceptible to manipulation and raise concerns among stakeholders. Consequently, the importance of the value of financial statements decreases due to the use of earnings management practices. As a result, the market is increasingly dependent on alternative measures of company value, such as book value, as the reliability of earnings decreases (Bin Khidmat et al. 2018).

Several studies exploring the value relevance of accounting information emphasize that such information should have a substantive impact on the market value of an entity (Barth et al. 2001). Prospective investors scrutinize an entity’s financial statements to evalu-
ate its performance, thus the value relevance of the information is reflected in fluctuations in share prices (Azhmi and Subekti 2014). This information influences investors’ decisions to buy, sell, or hold stocks, thereby impacting stock prices and market behavior.

Financial results serve as indicators of an entity’s economic performance and are pivotal in investment decision making. For instance, an increase in revenue is typically interpreted as a sign of favorable economic conditions and robust financial performance. Consequently, this could lead to higher stock prices as investors may perceive the entity as more attractive for investment (Nelwan et al. 2020). The reliability and relevance of accounting information can be affected by various factors, including accounting standards, managerial discretion, and external market conditions. Discrepancies or inaccuracies in financial reporting can lead to misinterpretation of a company’s financial position, potentially resulting in mispricing of stocks and increased market volatility.

Cash flows serve as crucial indicators of an entity’s ability to generate adequate cash to fulfill its obligations, sustain business operations, distribute dividends, and undertake new investments without relying on external financing (Sutarti 2012). According to Weygandt et al. (2013), the cash flow statement presents details of cash inflows, outflows, and changes in operational, investment, and financing activities. Stakeholders utilize this statement, as noted by Suastawan (2014), to assess an entity’s capacity to formulate strategic policies regarding capital investments. Additionally, the cash flow statement provides insights into an entity’s proficiency in generating and utilizing cash and cash equivalents (Sholihah 2013). Consequently, the cash flow statement assumes heightened significance when stakeholders evaluate an entity’s financial condition (Fachruddin 2013), and cash flow information can inform stakeholders’ investment decision-making processes.

Based on previous studies, the following hypothesis can be posited:

Hypothesis 1 (H$_1$): Earnings, the book value of equity, and cash flows are value relevant to the market, influencing share prices significantly, given that the market does not know whether or not the earnings management practices are used at the company level.

2.2. Is Earnings Management a Reporting Strategy or an Opportunistic Practice?

Numerous research endeavors have aimed to delineate the conceptual intricacies of earnings management. Notably, Beneish (1999) underscored the interest sparked among financial analysts, researchers, and regulators regarding the degree of manipulation in financial results. Among the pioneers in attempting to define earnings management is Schipper (1989), who characterizes it as a deliberate action within the financial reporting process aimed at securing financial advantages. Healy and Wahlen (1999) proposed a more nuanced interpretation of earnings management. According to their perspective, earnings management occurs when managers alter financial reports to mislead certain stakeholders regarding the true economic performance of the entity.

As a reporting strategy, earnings management involves the handling of financial results to highlight the favorable shades of a company’s performance to external stakeholders such as investors, creditors, and regulatory bodies. Companies may engage in earnings management to smooth out fluctuations in reported earnings, meet analyst expectations, or signal financial stability and growth (Hussain et al. 2020). In this sense, earnings management serves as a strategic tool for shaping the perception of a company’s financial health and performance. Dechow and Skinner (2000) state that earnings management comprises practices legitimately employed by management to influence information users. Scott (2009) delineates earnings management as a managerial decision involving the manipulation of accounting policies to achieve specific objectives. Other scholars suggest that earnings management entails the utilization of flexible accounting principles to enable managers to influence reported earnings, thereby resulting in either inflated or deflated income figures (Davidson et al. 2004).
On the other hand, earnings management was also documented as an opportunistic practice which involves unethical or fraudulent behavior aimed at achieving personal or corporate gains at the expense of stakeholders’ interests. Certain studies underscore that improper management of financial outcomes could potentially lead to fraudulent financial reporting, consequently misleading information users (Ghazali et al. 2015). This may include actions such as income smoothing, timing of revenue recognition, or manipulation of accounting estimates to artificially inflate profits or conceal financial weaknesses. Such opportunistic earnings management practices can erode investor trust, distort market efficiency, and lead to negative consequences for shareholders and other stakeholders.

Earnings management was typically categorized into two main types: accruals earnings management and real earnings management (Roychowdhury 2006; Gunny 2010; Andreas 2017; Bartov et al. 2000).

Accruals management entails accounting decisions aimed at concealing or distorting the true economic performance of an entity (Dechow and Skinner 2000). It involves professional judgment manifested in selecting accounting methods or making estimates, actions that do not directly impact cash flows (Carp and Georgescu 2019). Accruals earnings management (AEM) seems to be preferred by scholars as focus for empirical studies (Istrate et al. 2015; Jackson 2017; Wali 2017; Christensen et al. 2021; Alkadhi and Jarrahy 2021). AEM practices are frequently examined in various studies, along with their impact on the performance and valuation of the entity (Susanto 2017; Darmawan et al. 2019; Anton and Carp 2020; Indriani and Pujiono 2021).

Real earnings management (REM), on the other hand, involves altering the timing or nature of an entity’s ordinary operations in pursuit of specific objectives (Roychowdhury 2006; Huian et al. 2018). Additionally, genuine earnings management refers to manipulation carried out within the entity’s operational activities that directly affect its cash flow (Sun et al. 2014; Susanto 2017). In academic literature, practices of real earnings management (REM) are typically categorized into three main activities: operating decisions, investment decisions, and financing decisions (Roychowdhury 2006; Sellami 2016; Xu et al. 2007).

With the onset of the COVID-19 pandemic, entities worldwide have experienced adverse impacts stemming from various factors such as heightened uncertainty, supply and demand disruptions, and government-imposed lockdowns (Ozili and Arun 2020). According to a report by PwC in 2021, more than 70% of entities have felt the negative repercussions of the COVID-19 crisis (PwC 2021). It can be argued that during periods of economic turmoil and financial downturns, companies are inclined to resort to increased earnings management practices as a means of alleviating the adverse effects of crises on their financial performance, portraying more favorable financial information, and projecting a positive image of the entity (Filip and Raffournier 2014; Ozili 2017; Ozili and Arun 2020). The emergence of the COVID-19 outbreak has induced significant shifts in both the internal and external environments of entities (Ding et al. 2021), prompting a strong incentive for them to engage in earnings management practices (Yan et al. 2022). The COVID-19 pandemic has impacted businesses across all industries, including tourism, transportation, energy, and manufacturing, leading to deteriorating business performance, and heightened economic uncertainty (Ryu and Chae 2022).

From a diachronic research perspective, earnings management can be viewed as either a reporting strategy or an opportunistic practice, depending on the context and intent behind its implementation. Delineating between strategical or opportunistic practice relies ultimately on motivation. Salno and Baridwan (2000), employing an agency theory framework, assert that earnings management is influenced by conflicts of interest between managers (agents) and administrators (principals), stemming from each party’s desire to achieve or prioritize their desired level of prosperity.

Research on the phenomenon of earnings management during periods of economic turmoil and financial recession revealed that companies often engage in result manipulation to present a more favorable depiction of their financial status (Watts and Zimmerman 1978; Jones 1991; Han and Wang 1998; Flores et al. 2016). These companies have diverse moti-
vations for earnings management, including the desire to enhance issue prices (Nikbakht et al. 2021) and to maximize executive benefits (Li and Kuo 2017).

According to signaling theory, the adoption of earnings management practices enables an entity to convey favorable information about its financial condition to interested parties (Sun et al. 2011). Conversely, agency theory underscores that earnings management can manifest either through the inflation or deflation of revenues, with managers seeking to opportunistically manipulate gains in their favor, often at the expense of other stakeholders’ interests (Liu and Sun 2022).

According to the research conducted by Paluruan and Siregar (2009), earnings management, particularly in the form of short-term and total discretionary accruals, does not exert a significant impact on the value relevance of accounting information. Conversely, Sholihah (2013) observes in their research that while accounting information remains relevant, the presence of earnings management practices diminishes the value relevance of this information. Given that earnings management might stem from opportunistic managerial behavior, the integrity of accounting information becomes consequently compromised by such practices (Nelwan et al. 2020).

The analysis of patterns within the Romanian foreign exchange markets and the identification of signs indicating the manipulation of disclosed financial data, driven by either opportunistic motives or strategic foresight, are currently in an incipient phase of analysis. The evolutionary trajectories of the Romanian stock markets have been explored, for instance, from the standpoint of political influences (Vancea et al. 2017), changes in accounting regulations (Istrate et al. 2015), or the perspective of audits (Feleaga and Neacsu 2016). The current study seeks to expand the breadth of empirical inquiry by devising a quantitative analysis rooted in the processing of financial disclosures from publicly traded companies, with a specific focus on accrual accounting metrics and cash flow dynamics.

Considering the previous findings from the literature, this study posits that earnings management (EM) has a significant influence on the value relevance of accounting information, suggesting that the manipulation of financial reports can influence how investors perceive and interpret financial figures, such as earnings per share (EPS), book value of equity (BVS), and cash flow per share (CFS). EM moderates the value relevance of accounting information by distorting financial performance metrics, influencing market perceptions, raising regulatory concerns, and ultimately affecting investor decision-making processes. Our hypothesis formulation underscores the importance of transparent financial reporting practices and the reliability of accounting information in maintaining market efficiency and investor trust:

**Hypothesis 2 (H₂):** Earnings management has a significant influence on the value relevance of accounting information.

### 3. Research Methods

To examine the research hypotheses, this study followed several steps (Jaba 2002; Robu 2021): identifying the population, selecting the sample, determining variables, defining data analysis methods, proposing econometric models for analysis, collecting and processing data, and interpreting the research findings (Grosu et al. 2023).

#### 3.1. The Studied Population and Analyzed Sample

For this study, the target population comprised all companies listed on the Bucharest Stock Exchange (BVB) subject to mandatory financial auditing as per Romanian regulations. The sample population exclusively included companies listed on the regulated market, totaling 83 entities. In Romania, the primary capital market regulated by law is the Bucharest Stock Exchange (BVB), which categorizes entities into two main categories. Category I encompasses listed entities meeting specific criteria regarding minimum share capital, operational duration, financial performance, and liquidity. Category II includes the
remaining entities, which only need to meet the minimum share capital requirement (Filip and Raffournier 2010).

Our analysis focused on the timespan 2018–2021 as it offered complete and comparable data for our research aims. Entities operating in the financial banking, insurance, and financial intermediation sectors were excluded from the total number of analyzed listed entities because they adhere to different criteria in financial reporting. Additionally, entities lacking all necessary information for analysis were omitted. Consequently, a representative sample of 62 listed entities, representing 74.70% of the total population, was obtained. Data were selected from the sample entities' financial statements for the specified period, resulting in 248 observations for analysis. Our efforts to analyze the data post-2021 were impeded by incomplete information within the dataset for 2022 and by the ongoing submission of financial reports for 2023 at the time of our analysis.

Regarding the object of activity, the sample analyzed included entities operating in various fields, namely 42 entities in the manufacturing industry (68%), 12 entities in the field of services (20%), 4 entities in the construction field (6%), and 4 entities in the field of trade (6%). Figure 1 presents the distribution of the entities included in the sample by field of activity.

![Figure 1. Structure of the analyzed sample according to the object of activity.](image)

All data utilized in the subsequent phases of our study were manually gathered from individual financial statements accessible on the Bucharest Stock Exchange website. Subsequently, the data were processed and analyzed employing IBM SPSS Statistics 22.

3.2. Variables Analyzed, Data Source, and Models Proposed for Testing

In accordance with Ohlson (1995), this research investigates the relevance of accounting information within the following regression equation:

\[ P_{it} = \alpha_0 + \alpha_1 \cdot EPS_{it} + \alpha_2 \cdot BVS_{it} + \alpha_3 \cdot CFS_{it} + \epsilon_{it} \]  

(1)

This model was also used in other studies (Nelwan et al. 2020) that tested the value relevance of accounting information in the presence of earnings management and the proxies for each variable are presented below:

- \( P_{it} \) is the share prices of company \( i \) at the end of the third month of year \( t + 1 \);
- \( EPS_{it} \) is the earnings per share ratio and represents earnings before extraordinary item divided by the number of shares outstanding of company \( i \) at the end of year \( t \), as a proxy for earnings;
- \( BVS_{it} \) is book value per share, calculated as total equity divided by the number of shares outstanding of company \( i \) at the end of year \( t \), as a proxy for book value for equity;
- \( CFS_{it} \) represents total cash flows divided by the number of shares outstanding of company \( i \) at the end of year \( t \), as a proxy for total cash flows;
- \( \epsilon_{it} \) is the residual part of the model for company \( i \) at the end of year \( t \);
- and \( \alpha_0, \ldots, \alpha_3 \) are the parameters of the proposed model.
According to academic literature, EPS, BVS, and CFS play pivotal roles in earnings management, accounting practices, and stock risk assessment (Riaz et al. 2023). Drawing upon previous literature, this study explores the context of Romanian listed companies and offers valuable insights into local approaches to earnings management as depicted in financial reporting practices.

Accounting standards and practices governing EPS calculations influence how companies report their earnings. Regulators often scrutinize EPS reporting to detect potential earnings management activities and ensure compliance with accounting standards. Misleading EPS figures resulting from earnings management practices can lead to mispricing of stocks and increased stock price volatility. Investors may face higher risk exposure if they base their investment decisions on inaccurate or manipulated EPS data.

BVS is a key metric in financial reporting and is influenced by accounting principles related to asset valuation, depreciation, and impairment. Transparency and accuracy in BVS reporting are essential for investors to assess a company’s financial position accurately. Manipulated BVS figures can distort investors’ perceptions of a company’s asset value and financial stability, leading to misallocation of capital and increased investment risk.

The preparation and presentation of CFS require adherence to accounting principles related to revenue recognition, expense classification, and cash flow classification. Ensuring the reliability and relevance of CFS figures is crucial for investors to evaluate a company’s cash-generating capabilities. Inaccurate or manipulated CFS figures can mask underlying cash flow problems or liquidity issues, exposing investors to higher risk if they rely on misleading cash flow data to assess a company’s financial health.

To explore whether earnings management influences the value relevance of accounting information, this study employs discretionary accruals calculated using the original model of Jones (1991). The Jones model for estimating discretionary accruals as a proxy for earnings management practices, represented as follows:

\[
TA_t = \left[ (\Delta CA_t - \Delta Cash_t) - (\Delta CL_t - \Delta STD_t) \right] - DEP_t
\]  
(2)

where

- \(TA_t\) are the total accruals in year \(t\);
- \(\Delta CA_t\) represents the change in the current assets in year \(t\) from year \(t-1\);
- \(\Delta Cash_t\) represents the change in the cash in year \(t\) from year \(t-1\);
- \(\Delta CL_t\) represents the change in the current liabilities in year \(t\) from year \(t-1\);
- \(\Delta STD_t\) represents the change in the short-term debts in year \(t\) from year \(t-1\);
- \(DEP_t\) represents the depreciations and amortization in year \(t\).

Jones (1991) proposed an econometric model to estimate the discretionary accruals as follows:

\[
\frac{TA_t}{A_{t-1}} = \beta_0 \left( \frac{1}{A_{t-1}} \right) + \beta_1 \left( \frac{\Delta REV_t}{A_{t-1}} \right) + \beta_2 \left( \frac{PPE_t}{A_{t-1}} \right) + \epsilon
\]  
(3)

where

- \(TA\) are the total accruals that are calculated based on Equation (2);
- \(A\) are the total assets;
- \(\Delta REV\) is the change in revenues;
- \(PPE\) represents the gross property, plant and equipment;
- \(\epsilon\) is the error term, that will be estimated as the discretionary part of \(TA\) scaled by \(A_{t-1}\), named \(DA\) (discretionary accruals) as a continuous variable;
- and \(\beta_{i=0...2}\) are the parameters of the model.

To test and validate the first hypothesis, we used the model from Equation (1).

For testing and validating the second hypothesis, we proposed the following model starting from Equation (1):

\[
P_{it} = a_0 + a_1 \cdot EPS_{it} + a_2 \cdot BVS_{it} + a_3 \cdot CFS_{it} + a_4 \cdot DA_{it} + a_5 \cdot DA_{it} \cdot EPS_{it} + a_6 \cdot DA_{it} \cdot BVS_{it} + a_7 \cdot DA_{it} \cdot CFS_{it} + \epsilon_{it}
\]  
(4)

where:
- \( DAp \) is a dummy variable which takes value 1 if the \( DA \) is positive (existence of earnings management based on recognition of revenues or non-recognition of expenses) and 0 if the \( DA \) is negative (existence of earnings management based on non-recognition of revenues or recognition of expenses) for a company \( i \) at the end of year \( t \);

- \( \alpha_{i=0, \ldots, 7} \) are the parameters of the model (\( \alpha_0 \) represents the model’s intercept and indicates the average share price for companies that have negative \( DA \), \( \alpha_{1=1, \ldots, 3} \) indicate influence of independent variables \( EPS, BVS, \) and \( CFS \), on share price \( (P) \) for the companies with negative \( DA \); \( \alpha_4 \) indicates the difference between the average share price for companies that have negative \( DA \) and companies with positive \( DA \); and \( \alpha_{i=5, \ldots, 7} \) indicate the supplementary influence of independent variables \( EPS, BVS, \) and \( CFS \), on share price \( (P) \) for the companies with positive \( DA \)).

Based on the hypotheses put forward for examination, the analysis investigated whether managers engaged in the manipulation of information from financial reports during the studied period and assessed how this behavior influenced the value relevance of the reported information.

### 4. Results and Discussions

After analyzing the data gathered from the selected sample between 2019 and 2021, the principal findings pertain to descriptive statistics, Pearson correlation coefficient estimates, estimation of model parameters, and statistical tests examining the impact on the value relevance of accounting information.

Table 1 presents a descriptive analysis of the four variables, i.e., earnings per share, book value of equity, market share price, and cash flow per share, which are essential for understanding their characteristics and relationships during the analysis. Earnings per share ranged from \(-7.610\) to \(90.720\) over the period, with a mean of \(1.5807\) and a standard deviation of \(8.16366\), indicating a relatively large dispersion of EPS values around the mean. The book value per share (BVS) ranges from \(-7.260\) to \(732.320\). The mean BVS is \(21.8131\) and the standard deviation is \(90.8256\), suggesting a significant variability in BVS across the dataset. Cash flow per share (CFS) ranges from \(-10.900\) to \(89.560\). The mean CFS is \(1.5633\), with a standard deviation of \(8.5975\), indicating moderate variability around the mean. Also, for discretionary accruals (DA) with a range from \(-7.69\) and \(3.37\) and an average equal to \(0.0000\), there are significant differences between the two groups.

It was worth noting that the data did not conform to a normal distribution, with significant differences observed between the minimum and maximum values, mean and standard deviation. However, there is a notable upward trend in EPS throughout the period, suggesting a potential economic expansion in the capital market over the sample period. Based on the data presented in the table, the BVS variable, representing the price per share, exhibits the highest average value. This suggests that prospective investors are particularly concerned with the share price and book value per share in comparison to earnings per share (EPS). A notable aspect is the presence and influence of discretionary accruals on the variables analyzed. The data in Table 1 suggest that the minimum and maximum values, the average price per share, book value per share, and cash flow per share were much higher in the period analyzed under the influence of negative discretionary accruals. A possible explanation is that management was manipulating the price per share, book value per share, and cash flow per share to give a better picture of the company’s financial performance and to attract potential investors.

Table 2 displays the descriptive statistics by year which allowed us to examine if any significant disruptions or shifts can be directly linked to the COVID-19 pandemic. The data in the table did not show significant changes attributable to COVID-19. While there were fluctuations in the values for Price, EPS, BVS, CFS, and DA across the years 2018 to 2021, these variations are relatively minor and do not demonstrate a clear or consistent pattern of significant change during the COVID-19 period (2020–2021). For instance, Price shows
some variation but remains relatively stable, EPS shows a gradual increase over the years, BVS shows a steady increase, and CFS and DA show some year-to-year variability without a clear trend. The pandemic crisis was not included as a new variable in the next steps of this study.

Table 1. Descriptive statistics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>DAp = 0</th>
<th>DAp = 1</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price *</td>
<td>102</td>
<td>146</td>
<td>248</td>
</tr>
<tr>
<td>N</td>
<td>11.1684</td>
<td>8.6882</td>
<td>9.7083</td>
</tr>
<tr>
<td>Mean</td>
<td>43.5138</td>
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</tr>
<tr>
<td>Std. Deviation</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>Minimum</td>
<td>0.00</td>
<td>0.00</td>
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</tr>
<tr>
<td>Maximum</td>
<td>316.00</td>
<td>360.00</td>
<td>360.00</td>
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<table>
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<td>N</td>
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<td>146</td>
<td>248</td>
</tr>
<tr>
<td>Mean</td>
<td>1.4730</td>
<td>1.6559</td>
<td>1.5807</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>7.34307</td>
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<td>8.16366</td>
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<td>Minimum</td>
<td>$-7.61$</td>
<td>$-3.43$</td>
<td>$-7.61$</td>
</tr>
<tr>
<td>Maximum</td>
<td>61.22</td>
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<td>248</td>
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<td>Mean</td>
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<td>21.8131</td>
</tr>
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<td>Std. Deviation</td>
<td>96.78730</td>
<td>86.68658</td>
<td>90.82560</td>
</tr>
<tr>
<td>Minimum</td>
<td>$-7.26$</td>
<td>$-6.70$</td>
<td>$-7.26$</td>
</tr>
<tr>
<td>Maximum</td>
<td>658.30</td>
<td>732.32</td>
<td>732.32</td>
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<table>
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</thead>
<tbody>
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<td>N</td>
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<td>146</td>
<td>248</td>
</tr>
<tr>
<td>Mean</td>
<td>3.4818</td>
<td>0.2230</td>
<td>1.5633</td>
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<td>Std. Deviation</td>
<td>12.83566</td>
<td>2.59920</td>
<td>8.59750</td>
</tr>
<tr>
<td>Minimum</td>
<td>$-0.46$</td>
<td>$-10.90$</td>
<td>$-10.90$</td>
</tr>
<tr>
<td>Maximum</td>
<td>89.56</td>
<td>89.56</td>
<td>89.56</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>DA **</th>
<th>DAp = 0</th>
<th>DAp = 1</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>102</td>
<td>146</td>
<td>248</td>
</tr>
<tr>
<td>Mean</td>
<td>$-0.2251$</td>
<td>0.1573</td>
<td>0.00</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.8482</td>
<td>0.3171</td>
<td>0.6235</td>
</tr>
<tr>
<td>Minimum</td>
<td>$-7.69$</td>
<td>$-0.01$</td>
<td>$-7.69$</td>
</tr>
<tr>
<td>Maximum</td>
<td>3.37</td>
<td>3.37</td>
<td>3.37</td>
</tr>
</tbody>
</table>

* There are not significant differences between the DA categories for Sig. < 0.005. ** There are significant differences between the DA categories for Sig. < 0.005.

The correlation coefficients in Table 3 measure the strength and direction of the relationships between the sample variables. The correlation coefficient between EPS and BVS is 0.902, indicating a strong positive correlation. To test for multicollinearity, we estimated the Variance Inflation Factor (VIF), obtaining a VIF of 1 and p-value = 0. This value suggests no multicollinearity between BVS and EPS, but rather a strong correlation among the predictors used. This suggests that there is a significant positive relationship between earnings per share (EPS) and book value per share (BVS). Similarly, there is a strong positive correlation between BVS and CFS (0.613), indicating that book value per share (BVS) and cash flow per share (CFS) are positively related. However, the correlation between EPS and CFS is relatively weaker (0.394), but still significant. This suggests a moderate positive relationship between earnings per share (EPS) and cash flow per share (CFS).

The correlation between earnings management (EM), measured by DA, and the other variables (EPS, BVS, and CFS) is relatively weak and not statistically significant. This indicates that earnings management does not have a significant linear relationship with EPS, BVS, or CFS. Thus, additional analysis is warranted, and other factors should be considered.

To test the first hypothesis of this study, we explored the results for the market-relevant value of accounting information, with share price as the dependent variable, the results being presented in Table 4.
Table 2. Descriptive statistics by year.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>2018</td>
<td>62</td>
<td>9.1407</td>
<td>41.15699</td>
<td>0.00</td>
<td>316.00</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>62</td>
<td>10.4945</td>
<td>46.67837</td>
<td>0.00</td>
<td>360.00</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>62</td>
<td>9.0818</td>
<td>37.14802</td>
<td>0.00</td>
<td>283.00</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>62</td>
<td>10.1162</td>
<td>32.15645</td>
<td>0.00</td>
<td>236.00</td>
</tr>
<tr>
<td>Total</td>
<td>248</td>
<td>62</td>
<td>9.7083</td>
<td>39.40789</td>
<td>0.00</td>
<td>360.00</td>
</tr>
</tbody>
</table>

| EPS   | 2018| 62    | 1.1108         | 5.00241    | −7.56   | 35.95   |
|       | 2019| 62    | 1.3631         | 6.18973    | −2.05   | 46.89   |
|       | 2020| 62    | 1.6451         | 7.96313    | −2.16   | 61.22   |
|       | 2021| 62    | 2.2036         | 11.93480   | −7.61   | 90.72   |
| Total | 248 | 62    | 1.5807         | 8.16366    | −7.61   | 90.72   |

| BVS   | 2018| 62    | 20.2533        | 85.36654   | −6.56   | 628.48  |
|       | 2019| 62    | 21.3419        | 88.83084   | −6.70   | 642.12  |
|       | 2020| 62    | 21.9833        | 91.12955   | −6.90   | 658.30  |
|       | 2021| 62    | 23.6739        | 99.56732   | −7.26   | 732.32  |
| Total | 248 | 62    | 21.8131        | 90.82560   | −7.26   | 732.32  |

| CFS   | 2018| 62    | 2.5959         | 12.26186   | −0.19   | 89.56   |
|       | 2019| 62    | 0.5848         | 2.83580    | −1.11   | 21.32   |
|       | 2020| 62    | 1.6907         | 8.81202    | −10.90  | 52.40   |
|       | 2021| 62    | 1.3818         | 7.19892    | −7.31   | 57.61   |
| Total | 248 | 62    | 1.5633         | 8.59750    | −10.90  | 89.56   |

| DA    | 2018| 62    | 0.0352         | 0.26365    | −0.409  | 1.163   |
|       | 2019| 62    | −0.0367        | 0.52084    | −3.931  | 0.466   |
|       | 2020| 62    | 0.0423         | 0.47285    | −0.995  | 3.366   |
|       | 2021| 62    | −0.0408        | 1.00177    | 1.165   | 2.167   |
| Total | 248 | 62    | 0.0000         | 0.62349    | −7.692  | 3.366   |

Where Price = share price, EPS = earnings per share, BVS = book value per share, CFS = cash flow per share, DA = discretionary accruals.

Table 3. Correlations established between variables.

<table>
<thead>
<tr>
<th></th>
<th>Price</th>
<th>EPS</th>
<th>BVS</th>
<th>CFS</th>
<th>DA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>0.110</td>
<td>0.361 **</td>
<td>0.495 **</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.085</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>EPS</td>
<td>Pearson Correlation</td>
<td>0.110</td>
<td>1</td>
<td>0.902 **</td>
<td>0.394 **</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.085</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>BVS</td>
<td>Pearson Correlation</td>
<td>0.361 **</td>
<td>0.902 **</td>
<td>1</td>
<td>0.613 **</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>CFS</td>
<td>Pearson Correlation</td>
<td>0.495 **</td>
<td>0.394 **</td>
<td>0.613 **</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>DA</td>
<td>Pearson Correlation</td>
<td>0.005</td>
<td>0.018</td>
<td>0.010</td>
<td>−0.035</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.938</td>
<td>0.772</td>
<td>0.879</td>
<td>0.580</td>
</tr>
</tbody>
</table>

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

The results in Table 4 show that the analyzed model is significant with an R-Squared value of 0.395, thus validating H1. This indicates that approximately 39.5% of the variability in share prices can be explained by the model, which includes earnings per share (EPS), book value of equity (BVS), and cash flow per share (CFS), as integral components of accounting information. The estimates reveal that accounting information is relevant for stakeholders, as BVS and CFS have a positive influence on share prices, while EPS has a negative influence. The positive impact of BVS and CFS suggests that investors prefer companies with strong capitalization and high levels of free cash flows, which ensure
strong liquidity. On the other hand, the negative influence of EPS indicates that investors might be wary of companies reporting earnings that might be perceived as less reliable or indicative of underlying financial instability.

Table 4. Parameters estimates for model from Equation (1).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5.142</td>
<td>2.017</td>
<td>2.549</td>
<td>0.011</td>
<td>1.169 – 9.114</td>
</tr>
<tr>
<td>EPS</td>
<td>-4.800</td>
<td>0.628</td>
<td>-7.649</td>
<td>0.000</td>
<td>-6.036 – -3.564</td>
</tr>
<tr>
<td>BVS</td>
<td>0.496</td>
<td>0.066</td>
<td>7.560</td>
<td>0.000</td>
<td>0.367 – 0.625</td>
</tr>
<tr>
<td>CFS</td>
<td>0.854</td>
<td>0.326</td>
<td>2.620</td>
<td>0.009</td>
<td>0.212 – 1.496</td>
</tr>
</tbody>
</table>

R Squared = 0.395 (Adjusted R Squared = 0.388).

To test the second hypothesis of this study, we explored the results for the market-relevant value of accounting information including discretionary accruals for the two categories (positive and negative), with share price as the dependent variable, the results being presented in Table 5.

Table 5. Parameters estimates for model from Equation (4).

<table>
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<tr>
<th>Parameter</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
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<tbody>
<tr>
<td>Intercept</td>
<td>4.390</td>
<td>2.736</td>
<td>1.604</td>
<td>0.110</td>
<td>-1.000 – 9.780</td>
</tr>
<tr>
<td>EPS</td>
<td>-5.403</td>
<td>1.149</td>
<td>-4.704</td>
<td>0.000</td>
<td>-7.665 – -3.140</td>
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<tr>
<td>BVS</td>
<td>0.357</td>
<td>0.118</td>
<td>3.018</td>
<td>0.003</td>
<td>0.124 – 0.591</td>
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<tr>
<td>CFS</td>
<td>1.661</td>
<td>0.451</td>
<td>3.681</td>
<td>0.000</td>
<td>0.772 – 2.551</td>
</tr>
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<td>DAp</td>
<td>0.733</td>
<td>3.545</td>
<td>0.207</td>
<td>0.836</td>
<td>-6.251 – 7.717</td>
</tr>
<tr>
<td>DAp * EPS</td>
<td>3.195</td>
<td>1.335</td>
<td>2.392</td>
<td>0.018</td>
<td>0.564 – 5.826</td>
</tr>
<tr>
<td>DAp * BVS</td>
<td>-0.093</td>
<td>0.139</td>
<td>-0.668</td>
<td>0.505</td>
<td>-0.365 – 0.180</td>
</tr>
<tr>
<td>DAp * CFS</td>
<td>7.506</td>
<td>1.156</td>
<td>6.490</td>
<td>0.000</td>
<td>5.227 – 9.784</td>
</tr>
</tbody>
</table>

Dependent variable: Price. R Squared = 0.559 (Adjusted R Squared = 0.546). Where Price = share price, EPS = earnings per share, BVS = book value per share, CFS = cash flow per share, DAp = dummy variable for DA described under Equation (4). "*" symbol is used to indicate the interaction between DAp and specific variables.

As per Table 5, the analyzed model is significant with an R-squared value of 0.559. This indicates that approximately 55.9% of the variability in share prices can be explained by the model, which includes earnings per share (EPS), book value of equity (BVS), and cash flow per share (CFS). Specifically, accounting information is relevant for the market or potential investors in conditions that they have specific information for existence of EM. The results indicate that potential investors still rely on fundamental analysis and consider accounting information when making investment decisions and know that financial statements could be affected by EM. Investors prefer to know about a company’s ability to pay dividends, manage debts, generate cash, and maintain profitability, especially when these factors are influenced by management decisions to use EM practices.

In companies with negative discretionary accruals (DAp = 0), EPS exerts a significant negative influence on share price (−5.403), suggesting that higher EPS is associated with lower share prices. This suggests that companies with increased manipulated losses tend to have a decrease in share price. Conversely, BVS and CFS exhibit a positive impact on share price.

For companies with positive discretionary accruals (DAp = 1), EPS influence is higher with 3.195 compared to (−5.403) the case of companies with negative discretionary accruals (DAp = 0), resulting that EPS still negatively affects share price, its impact being less severe compared to those with negative discretionary accruals (DAp = 0). This outcome reveals that investors display stronger negative reactions to manipulated losses than to manipulated gains. For the two groups, BVS exhibits the same influence on P, but significant
influences are presented on CFS, where for the companies with positive discretionary accruals, investors are more sensitive to cash flows with a positive impact on share price (indicating that higher cash flows per share are associated with higher stock prices), compared with the companies with negative discretionary accruals.

The correlations observed in Table 3, supplemented by the findings presented in Tables 4 and 5, validate that earnings exhibit a negative and significant relationship, indicating the market’s responsiveness to earnings information, book value, and free cash flows, which have a significant influence on the investors’ decisions (negative for EPS, and positive for BVS and CFS). Furthermore, the significant interaction between earnings information and discretionary accruals reinforces the notion that earnings management diminishes the value relevance of earnings. This suggests that the effect of earnings information on stock prices is mitigated by earnings management.

To check the robustness of the estimated results from Table 5, we followed the approach of Lu and White (2014) and incorporated additional regressors into Equation (4) to validate our causal inference. Specifically, we included discretionary accruals (DA) and time fixed effects (by years). The results are presented in Table 6.

**Table 6.** Parameters estimates for the modified model from Equation (4).

<table>
<thead>
<tr>
<th>Parameter</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>3.491</td>
<td>4.217</td>
<td>0.828</td>
<td>0.409</td>
<td>-4.817 - 11.799</td>
<td></td>
</tr>
<tr>
<td>EPS</td>
<td>-5.436</td>
<td>1.159</td>
<td>-4.691</td>
<td>0.000</td>
<td>-7.718 - 3.153</td>
<td></td>
</tr>
<tr>
<td>BVS</td>
<td>0.355</td>
<td>0.120</td>
<td>2.965</td>
<td>0.003</td>
<td>0.119 - 0.591</td>
<td></td>
</tr>
<tr>
<td>CFS</td>
<td>1.689</td>
<td>0.459</td>
<td>3.682</td>
<td>0.000</td>
<td>0.785 - 2.592</td>
<td></td>
</tr>
<tr>
<td>DAp</td>
<td>1.218</td>
<td>3.170</td>
<td>0.384</td>
<td>0.701</td>
<td>-5.028 - 7.463</td>
<td></td>
</tr>
<tr>
<td>DA</td>
<td>0.314</td>
<td>4.057</td>
<td>0.077</td>
<td>0.938</td>
<td>-7.678 - 8.306</td>
<td></td>
</tr>
<tr>
<td>DAp * EPS</td>
<td>3.241</td>
<td>1.347</td>
<td>2.405</td>
<td>0.017</td>
<td>0.586 - 5.895</td>
<td></td>
</tr>
<tr>
<td>DAp * BVS</td>
<td>-0.091</td>
<td>0.140</td>
<td>-0.650</td>
<td>0.517</td>
<td>-0.367 - 0.185</td>
<td></td>
</tr>
<tr>
<td>DAp * CFS</td>
<td>7.570</td>
<td>1.169</td>
<td>6.476</td>
<td>0.000</td>
<td>5.267 - 9.873</td>
<td></td>
</tr>
<tr>
<td>DAp * DA</td>
<td>1.269</td>
<td>7.734</td>
<td>0.164</td>
<td>0.870</td>
<td>-13.968 - 16.505</td>
<td></td>
</tr>
<tr>
<td>Year 2019</td>
<td>-0.718</td>
<td>4.910</td>
<td>-0.146</td>
<td>0.884</td>
<td>-10.391 - 8.955</td>
<td></td>
</tr>
<tr>
<td>Year 2020</td>
<td>4.068</td>
<td>4.926</td>
<td>0.826</td>
<td>0.410</td>
<td>-5.637 - 13.774</td>
<td></td>
</tr>
<tr>
<td>Year 2021</td>
<td>0.725</td>
<td>4.936</td>
<td>0.147</td>
<td>0.883</td>
<td>-8.999 - 10.449</td>
<td></td>
</tr>
</tbody>
</table>

*Dependent variable: Price. R Squared = 0.562 (Adjusted R Squared = 0.539). Where Price = share price, EPS = earnings per share, BVS = book value per share, CFS = cash flow per share, DA = discretionary accruals, DAp = dummy variable for DA described under Equation (4). "*" symbol is used to indicate the interaction between DAp and specific variables.

Compared with the results from Table 5, the results in Table 6 show an increased R-squared value of 0.559. The influence of the initial variables maintains as significant on share prices for companies with negative discretionary accruals, and the differences between the two groups (companies with DAp negative and DAp positive) continue to be significant for EPS and CFS. However, the newly added variable DA, its interaction with the dummy DAp, and the time fixed effects (for the years 2019, 2020, and 2021) do not have a significant influence on share price (P).

The findings imply that investors take earnings information into account when making investment decisions. However, the presence of earnings management undermines the reliability of earnings information available in the market. Despite companies demonstrating strong financial performance, investor skepticism may persist towards entities engaging in earnings management. Consequently, investors may opt to divest their holdings in such entities, leading to a decline in share prices. Earnings management practices thus diminish the value relevance of earnings information in the market.

To some extent, this will lead investors to overlook earnings information when making investment decisions. Furthermore, as shown in Tables 4 and 5, cash flow information
demonstrates a positive and statistically significant relationship ($p$-value < 0.01), indicating its importance as a market-relevant metric.

The significance of cash flow information aligns with the findings from the initial assumption test, suggesting that investors continue to regard cash flows as essential information for valuation and investment decision making. Cash flow information plays a crucial role in assessing an entity’s financial well-being, and investors typically seek to ascertain the entity’s ability to generate cash.

The results validate both hypotheses and indicate their essential role for understanding the dynamics of accounting information in the market. H1 focuses on the direct impact of EPS, BVS, and CFS on share prices, highlighting their inherent value relevance. H2 extends this by examining how earnings management practices can potentially alter or moderate this relationship, offering critical insights into the reliability and credibility of financial reporting in influencing investor decisions and market outcomes in the Romanian context. Together, these hypotheses contribute to a comprehensive assessment of the role of accounting information in market valuation and investor behavior.

Our findings substantiate the idea that the relationship between accounting information and the stock market is characterized by a dynamic interplay between financial reporting, investor behavior, and market dynamics, with risk influencing the reliability and interpretation of accounting information in investment decision-making processes. The incidence of risk further complicates the relationship between accounting information and the stock market. Risks such as financial fraud, earnings manipulation, economic downturns, and market volatility can distort the accuracy and reliability of accounting information, undermining investor confidence and affecting stock prices. Investors must assess the level of risk associated with accounting information when making investment decisions, considering factors such as the quality of financial reporting, the transparency of accounting practices, and the potential impact of external risks on company performance.

Empirical studies often support the idea that earnings management practices can distort financial indicators’ value relevance, thereby affecting investor decisions and market outcomes (Subramanyam 1996; Bansal 2023). Therefore, the moderation effect observed in this model underscores the importance of considering contextual factors (like DA) when interpreting the impact of financial metrics on stock prices (Kang et al. 2010).

The results from the current study reveal significant insights into the impact of accounting information on share prices, which resonate with the findings of Rawashdeh et al. (2024) regarding the value relevance of earnings in Jordan. Specifically, the negative coefficient for EPS ($-2.208, p = 0.001$) suggests that higher reported earnings per share may decrease stock prices, possibly due to investor skepticism about earnings quality, aligning with the Jordanian evidence that earnings management can undermine the value relevance of reported earnings. Our results regarding the Romanian BVB context underscore that while accounting figures like BVS and CFS are crucial for stock valuation, the presence of earnings management, similar to the Jordanian context, significantly distorts the perceived reliability and relevance of earnings, ultimately impacting investor decision making.

Unlike the findings of Al-Omush (2014) on accruals, Economic Value Added (EVA), and Cash Value Added (CVA) in UK and US firms, which focuses on alternative performance measures, this research concentrates directly on fundamental financial metrics commonly used to gauge profitability and financial health. Complementing Albuquerque et al.’s (2023) comparison of cash flow indicators versus profit or loss (P/L) in European companies, this study zooms in on specific metrics and their direct influence on market perceptions and valuations within the Romanian context. Moreover, building on the study of Irshad et al. (2020) exploration of how market structure influences the value relevance of accounting information in Scandinavian countries, this study offers insights into a specific emerging market’s dynamics, shedding light on unique regional factors influencing investor decisions and market outcomes. This study’s emphasis on EPS, BVS, and CFS in relation to share prices on the BVB contributes a distinctive perspective to the understanding of financial reporting and investor behavior in Romania’s evolving market environment.
These findings add to the findings of Istrate et al. (2015), who examined accruals as an indicator of earnings management among Romanian-listed companies during their transition to IFRS. This paper brings a fresh perspective on financial reporting and investor behavior in Romania. It enhances practitioners’ and stockholders’ understanding of market dynamics and financial transparency in an emerging market context, providing a deeper look into how metrics like earnings per share (EPS), book value of equity (BVS), and cash flow per share (CFS) influence investor decisions and market outcomes.

4.1. Research Insights and Implications

The results of this study provide valuable insights into the interplay between accounting and earnings management in the Romanian stock exchange context. The interpretation of our results relies on the combination of theoretical aspects with empirical examination. The evaluation of earnings management in the Romanian-listed companies proves to be complex, as indicated by prior studies for different geopolitical contexts. This study’s results demonstrate that managers not only depend on accounting evidence but also emphasize that the adequacy or sophistication of earnings manipulation primarily hinges on a robust understanding and mastery of accounting information.

The findings of this study align with previous research that puts earnings management in a dual perspective. While earnings management can be employed as a legitimate reporting strategy to enhance transparency and communicate financial information effectively, it can also degenerate into opportunistic behavior when used to deceive or manipulate stakeholders for personal or corporate gain. Therefore, understanding the underlying motivations and implications of earnings management is extremely important for evaluating its ethical and economic ramifications in academic research and practical business contexts.

EPS, BVS, and CFS play pivotal roles in earnings management, accounting practices, and stock risk assessment. Understanding the implications of these metrics from an academic perspective is essential for investors, regulators, and researchers to mitigate the risks associated with earnings manipulation and ensure transparency and integrity in financial reporting.

4.2. Limitations of This Study

In exploring the conceptual framework of managing or manipulating earnings within the Romanian stock market context, this research has elucidated several significant risk patterns and associations. Nevertheless, acknowledging the constraints accompanying our findings offers context for research and opens new research paths.

The evolving nature of financial disclosure standards necessitates the inclusion of new quantifications related to environmental, social, or governance practices. Our study did not explore the new trends of financial disclosure standards, thus subsequent studies should account for the effects of these changes on research findings. Variations in policies and market environments across different countries may influence research outcomes. Future investigations could develop parallels or investigate the relationships between the Romanian context and other regions, to comprehend the potential impact of regional disparities on research results. While our study elucidates the economic ramifications of financial disclosure on listed companies in Romania, future research could delve deeper into the economic implications when instances of corporate misconduct are quantified and integrated into the analysis. Specifically, it would be interesting to explore how the influence of fraud on financial reports affects earnings management.

This study only considers the financial crisis stemming from the COVID-19 pandemic. Future research could enhance this study by comparing the effects of various economic events that have impacted the global market. Another constraint of this study lies in its focus solely on listed entities in Romania. Subsequent research endeavors could broaden the scope by exploring earnings management across diverse countries and financial markets.
5. Conclusions

Accounting information serves as core data aiding investors in their investment decisions. It is imperative for an entity to furnish relevant financial statements to stakeholders interested in accessing such information. However, when financial data undergo manipulation, their reliability diminishes, resulting in the loss of their significance in the market.

This study aimed to assess the significance of accounting information, comprising earnings, equity carrying amount, and cash flows, in the context of investment decision making. Furthermore, this study investigated whether the presence of earnings management practices impacts the relevance of accounting information, revealing opportunistic or strategic incentives or connotations. The Jones model was employed to identify instances of earnings management, with the study focusing on listed entities during the period from 2019 to 2021. Moreover, this research sought to examine key insights into earnings management and value relevance, drawing upon a comprehensive dataset pertaining to the case of Romanian companies listed at the Bucharest Stock Exchange.

The findings reveal that accounting information, encompassing metrics such as earnings per share, equity carrying amount, and cash flows per share, exerts an influence on the price per share, underscoring the relevance of accounting information in the market. Moreover, the results suggest that investors continue to factor in fundamental aspects of an entity when making investment decisions. However, it is important to acknowledge the limitations of this study in addressing earnings management. The complexity of this issue poses challenges, and it is difficult to capture all the factors motivating managers to engage in financial manipulation.

This study envisioned both qualitative and quantitative analyses of the evolution of key concepts and issues that could serve as the foundation for future scholarly investigations. Building upon the findings of this study, future research endeavors may delve deeper into similar topics of interest on both national and international scales. The global research discourse may receive considerable enhancement from future empirical analyses that allow the comparative assessment of earnings management across various stock markets in Europe or worldwide.


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