“Fraudulent financial reporting and firm value: An empirical analysis from the fraud hexagon perspective”

AUTHORS	Amiruddin Junus Sri Sundari Siti Zakina Azzahra

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Amiruddin Junus (Indonesia), **Sri Sundari** (Indonesia), **Siti Zakina Azzahra** (Indonesia)

FRAUDULENT FINANCIAL REPORTING AND FIRM VALUE: AN EMPIRICAL ANALYSIS FROM THE FRAUD HEXAGON PERSPECTIVE

Abstract

Indonesia's mining sector was ranked as the third most vulnerable to fraud according to the Association of Certified Fraud Examiners (ACFE) survey in 2019. The advent of the COVID-19 pandemic further contributed to a 26.6% decline in sector investment in 2020 due to widespread project cancellations. Thus, this study analyzes fraudulent financial reporting and firm value from the perspective of fraud hexagon and firm size focusing on the mining sector industry in Indonesia. The panel data regression analysis was used to analyze data collected from the annual reports of mining companies in Indonesia from 2020 to 2022. The findings indicate that management pressure proxied by financial targets and measured through Return on Assets (ROA) has an effect on fraudulent financial reporting (FFR), as measured by F-Score. In addition, opportunities proxied by nature of industry affect FFR negatively. FFR also affects the value of a company as proxied by Tobin's Q ratio. These results suggest that mining companies should set financial targets cautiously to avoid excessive pressure on management and uphold strong governance and control systems. Moreover, this study highlights the importance of raising awareness of fraudulent financial reporting, given its potentially adverse effects on a company's going concern.

Keywords fraud score, mining companies, financial target, opportunity, firm value

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Amiruddin Junus, Doctor, Faculty of Economics and Business, Hasanuddin University, Indonesia. (Corresponding author)

Sri Sundari, Doctor, Faculty of Economics and Business, Hasanuddin University, Indonesia.

Siti Zakina Azzahra, Bachelor, Faculty of Economics and Business, Hasanuddin University, Indonesia.

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INTRODUCTION

The evolving business landscape and current economic conditions have led to fierce competition among companies. This competitive environment encourages each company to enhance its performance to attain its objectives. Companies that succeed in optimizing their value are better positioned to thrive in a challenging business environment, which is essential for maximizing shareholder wealth and ensuring long-term sustainability. By implementing strategies to optimize their capital structure, companies can enhance their market reputation, attract investment, and secure their sustainability.

Capital owners often entrust management responsibilities to professionals, such as managers, to achieve high firm value, which aligns with the principles of agency theory by Jensen and Meckling (1976). While agency theory provides a framework for understanding the dynamics between stakeholders and managers, it also reveals vulnerabilities in corporate governance that may lead to unethical financial reporting practices. The Association of Certified Fraud Examiners (2020) reports that financial reporting fraud carries a median loss of US$954,000, the highest among other frauds. Preventing and detecting such fraud is crucial to business development, especially in

Indonesia, which reports the highest number of fraud cases in the Asia-Pacific region. The mining sector in Indonesia has been significantly affected by fraud, ranking third in the 2019 ACFE survey. The COVID-19 pandemic has intensified these problems, resulting in a 26.6% year-on-year decline in investment in the sector, amounting to $24.4 billion in 2020. This has resulted in a deterioration of Indonesia's economic objectives (Harsono, 2021). This study focuses on the mining sector to provide a preventive or anticipatory step at improving management and performance within the industry.

1. LITERATURE REVIEW AND HYPOTHESES

This study is based on agency theory, which focuses on the relationship between capital owners (principals) and management (agents). Principals employ agents to do work that suits their interests, provide services, and grant them decision-making authority, expecting accountability reports from agents to assess management performance and ensure optimal management of the company's investments and funds (Jensen & Meckling, 1976; Sari et al., 2019). According to Messier et al. (2017, p. 6), there are two key issues in the principal-agent relationship in this theory. The first issue is information asymmetry, which occurs due to a discrepancy between management's knowledge and that of the owners. Management typically possesses more detailed knowledge about the entity's actual financial and operational position than the owners, resulting in a lack of transparency regarding the entity's financial status. The second issue is a conflict of interest resulting from differing objectives, as management's actions do not always align with the owners' interests. These issues may lead to fraudulent financial reporting.

The primary objective of establishing a company is to maximize the wealth of its shareholders, while the company's long-term goal is to optimize the firm value (Apriada & Suardikha, 2016; Kartikawati, et al., 2020; Yanti & Munari, 2021). Firm value reflects investors' perceptions of a business's success, which is frequently linked to its stock prices (Salvatore, 2005, p. 8). To optimize firm value, companies develop policies that determine their capital structure (Hirdinis, 2019). Generally, a higher share price indicates a greater perceived value of a company. This situation may enhance the market confidence in the company, influencing perceptions not only of its current performance but also of its future potential (Sujoko & Soebiantoro, 2007). These factors positively influence the company's going concern.

Information on firm value can be seen in the financial statements. Since the financial statements are prepared by the management (agent), the management will try to present financial reports that show good performance to obtain both financial and non-financial rewards from the principal. When the company's performance is suboptimal, management tends to manipulate the information in the financial statements, or commonly referred to as fraudulent financial reporting, to maximize their interests. T. Singleton and A. Singleton (2010, p. 62) define financial statement fraud as fraud usually carried out by company executives with motives related to stock prices in the market, for example, pressure to keep stock prices high. Fraudulent activities may be conducted by an individual, a group of individuals, or a business entity, involving those who engage in, benefit from, or participate in deceptive practices (Khan et al., 2023). Fraudulent financial reporting is the intentional action to manipulate financial statements in a way that violates generally accepted accounting rules, thus affecting users of financial statements in making decisions based on the information provided (Beasley, 1996). Companies that have been indicted for fraud affect firm value. Vousinas (2019) suggests six elements that can lead to fraud: pressure, opportunity, rationalization, capability, arrogance, and collusion. These six factors are known as the fraud hexagon.

External pressure denotes undue pressure on management to fulfill the stakeholder's demands or expectations (Skousen & Twedt, 2009). A significant source of this pressure is the need to achieve financial targets. Managers are required to show good performance so that these targets can be achieved. Skousen et al. (2008) said that management performance in generating profits is assessed through Return on Assets (ROA). Research also indicates that companies involved

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in fraud significantly exhibit markedly different levels of ROA compared to those that do not engage in fraudulent activities (Summers & Sweeney, 1998). Sihombing & Panggulu (2022) and Sudrajat et al. (2023) found that an increase in a company's financial target correlates with a heightened possibility of management engaging in misleading financial reporting.

The nature of industry describes the optimal conditions that companies expect when carrying out their operational activities in a particular industry (Hadi et al., 2021). Financial statement fraud may arise when a corporation's circumstances are conducive, for example, having inadequate internal controls over an account, including accounts receivable and inventory assets (Himawan & Wijanarti, 2020). Receivables are among the assets that are most likely to be manipulated. Little cash due to large amounts of receivables may motivate management to manipulate financial statements (Sari & Witosari, 2022). Furthermore, the corporation can enhance its sales growth through manipulating accounts receivable, thereby presenting financial statements that depict a favorable view of the company's performance (Novarina & Triyanto, 2022). Setyono et al. (2023) found that the nature of industry influences fraudulent financial reporting. This aligns with the findings of studies by Bhaktiar and Setyorini (2021) and Setiawan and Trisnawati (2022).

Earnings management behavior is an inevitable occurrence resulting from the utilization of the accrual basis used in financial statements preparation Unfortunately, accruals intended to provide an accurate financial representation can be subtly adjusted to alter reported profit figures (Sihombing & Panggulu, 2022). For this reason, the ratio of total accruals to total assets (TATA) is used as an indicator of rationalization. Fraudsters will usually provide rational reasons when detected committing fraud as a form of self-defense. A company's rationalization practices can be assessed through the accrual situation divided by total assets (Bhaktiar & Setyorini, 2021). Wicaksari et al. (2023) found that total accrual affects the identification of financial fraud statements in the property and real estate sector. Furthermore, Bhaktiar and Setyorini (2021) state that TATA ratio is a useful measure for detecting fraudulent financial statements. However, Triyanto (2019) asserts that the total accrual ratio does not influence financial fraud statements.

Capability refers to the ability of employees to circumvent internal controls, devise techniques for concealment, and assess social circumstances for personal advantage (Horwath, 2011). This capability is often measured by examining CEO quality, which indicates a CEO's potential to leverage influence and make decisions that may impact the firm. The ACFE survey (2020) reveals that a significant portion of fraud is perpetrated by management and top executives, highlighting their high capabilities and the trust placed in them due to their influential roles within the organization. CEO quality is the ability of a CEO to consider various factors that can influence company decision making. The greater the education or ability of a CEO, the greater the likelihood of fraud through the use of their abilities (Aprilia et al., 2022). Smith et al. (2021) state that managers with a strong understanding of finance are more susceptible to manipulation. Nugroho and Diyanty (2022) found that CEO education affects indications of financial statement fraud. Managers with high abilities tend to commit more fraud than managers with lower management positions (Utami et al., 2019).

In addition to capability, arrogance has been identified as a contributing factor to fraudulent acts. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) reports that 70% of fraud cases exhibit a profile characterized by a combination of pressure and avarice or arrogance. Horwath (2011) notes that arrogance is characterized by a perpetrator's belief in their superiority and entitlement or greed, leading them to disregard internal controls, company policies, and procedures as inapplicable to themselves. Furthermore, 89% of fraud cases that occur involve the CEO of the company. According to Mohamed et al. (2015), the quantity of CEO photos included in the company's annual report may represent a degree of superiority or arrogance, as the CEO seeks to showcase their status and position within the company. Research by Maulina and Meini (2023) and Novarina and Triyanto (2022) shows that the frequent number of CEO's photographs positively influences fraudulent financial reporting.

The fraud hexagon model is a development for the fraud pentagon model, offering improved indications of potential fraud by incorporating collusion as a key factor influencing financial statement fraud (Vousinas, 2019). Collusion refers to collaboration of two or more individuals to commit fraudulent acts, such as deceiving third parties (Felli & Vallve, 2015; Vousinas, 2019). Managers and employees, acting as agents, often have significant opportunities for collusion, which complicates fraud detection for principals. The preparation of financial statements involves transactions with external parties. When these parties collude with the company, the resulting transactions appear genuine. According to Habib et al. (2017), companies with high levels of Related Party Transactions (RPT) are more prone to collusion with associated entities, indicating a heightened risk of financial statement fraud.

Alongside the six Fraud Hexagon variables that may induce fraud, firm size is also crucial in assessing its impact on fraudulent activities. Studies by Bierstaker et al. (2006), Holtfreter (2008), and Ushad and Ramen (2017) suggest that larger companies exert more effort in employing the most effective fraud prevention and detection methods. This is different from the research results of Matoussi and Gharbi (2011), Syamsudin et al. (2017), Siswantoro (2020), and Syamsuddin et al. (2023). Syamsudin et al. (2017) state that firm size correlates with an elevated incidence of financial reporting fraud in foreign, local, and public enterprises. This may indicate that organizations had adequate resources to implement fraud mitigation strategies, yet they choose not to do so. The reason is that the people involved in these fraudulent activities may be senior managers who understand that implementing adequate controls could lead to their identification as fraudsters. Siswantoro (2020) also observed that while firm size positively correlates with fraud, its impact may be statistically insignificant in some contexts. Syamsuddin et al. (2023) noted that firm size significantly increases the probability of financial reporting fraud among banking companies listed on the Indonesia Stock Exchange. In addition, Matoussi and Gharbi (2011) observed that as firm size grows, the level of transactions and expenses related to agency costs will create complex relationships that result in the likelihood of fraud. However, according to Handoko and Ramadhani (2017), smaller companies are considered more likely to practice fraudulent financial reporting to present favorable performance for potential investors. Consequently, large companies will receive more attention from the public, prompting them to be more precise in the financial reporting process. Thus, the financial reporting of large companies is considered more accurate. The variance in findings from prior research about the impact of firm size on fraud, especially financial reporting fraud, is a benchmark for including this variable, especially since mining companies in Indonesia consist of companies of different sizes.

Studies by Rukmana (2018) and Elviani et al. (2020) indicate that misleading financial reporting negatively affects firm value, implying that such actions by company management may lead to a decline in firm value. The results show that financial reporting fraud is one of the scourges that may disrupt the survival of a company. In addition to affecting a company's financial aspects, fraud may also injure the firm's value, leading to a decrease in the level of market share of the related company. Rukmana (2018) revealed that after fraud occurs, the company often faces unavoidable shocks, such as a decrease in stock prices due to loss of market trust. The decline in stock prices certainly correlates with the decline in company value.

Reflecting on the previous research studies, this study aims to investigate the effect of financial reporting fraud on firm value, with a specific focus on mining sector companies in Indonesia. This study is driven by the importance of company value as an indicator of market share and a long-term objective; thus, monitoring company value is crucial for sustaining business operations. Based on the descriptions above, the objective of this study is to test and analyze: 1) the impact of Fraud Hexagon on Fraudulent Financial Reporting; 2) the impact of Firm size on Fraudulent Financial Reporting; and 3) the impact of Fraudulent Financial Reporting on firm value.

The following hypotheses were developed based on the previously outlined theoretical basis and empirical studies.

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H_1: *Pressure affects fraudulent financial reporting.*

H_2: *Opportunity affects fraudulent financial reporting.*

H_3: *Rationalization affects fraudulent financial reporting.*

H_4: *Capability affects fraudulent financial reporting.*

H_5: *Arrogance affects fraudulent financial reporting.*

H_6: *Collusion affects financial reporting fraud.*

H_7: *Firm size affects fraudulent financial reporting.*

H_8: *Fraudulent financial reporting affects firm value.*

2. METHODOLOGY

The research population consists of mining sector companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022, sourced from the official IDX website, www.idx.co.id. The samples were selected using a purposive sampling method. The mining sector has a total of 63 companies. 15 companies were identified following selection according to the established criteria. Thus, for 3 years of observation, 2020–2022, a total of 45 samples were collected.

The dependent variables in this study are firm value and fraudulent financial reporting. Firm value proxied by Tobin's Q ratio indicates the present financial market estimate of the return value for each dollar invested in the future. The measurement is obtained by dividing the total share price and total liabilities by the total assets (Manurung & Wildan, 2023) as follows:

$$Tobin's\,Q = \frac{Total\,Market\,Value + Total\,Liabilities}{Total\,Assets}. \quad (1)$$

As for financial statement fraud, it is examined by the fraud score model. This model, first introduced by Dechow et al. (2007), evaluates financial statement fraud by analyzing data from a company's financial statements to generate a score indicating the probability of fraud. Skousen and Twedt (2009) highlight that this model primarily focuses on aggregating two variables: accrual quality and financial performance. The fraud score model (Sihombing & Panggulu, 2022) is formulated as follows:

$$F\text{-}Score = Accrual\,Quality + Financial\,Performance. \quad (2)$$

Accrual quality is calculated using the RSST accrual formula with the following formula:

$$RSST\,accrual = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{Avg\,Total\,Assets}, \quad (3)$$

where

$$WC = (Current\,Assets - Current\,Liability),$$

$$NCO = \begin{pmatrix} Total\,Assets - Current\,Assets \\ - Investment\,and\,Advances \end{pmatrix} - \begin{pmatrix} Total\,Liabilities - Current\,Liabilities \\ - Long\,Term\,Debt \end{pmatrix},$$

$$FIN = (Total\,Investment - Total\,Liabilities),$$

$$Avg\,Total\,Asset = \frac{Beginning\,Total\,Assets + End\,Total\,Assets}{2}.$$

Skousen and Twedt (2009) said that the financial performance indicated in a financial report can be used to predict the likelihood of fraudulent financial reporting. The formulation of financial performance is as follows:

$$Financial\,Performance = \Delta REC + \Delta INV + \Delta CS + \Delta EARN, \quad (4)$$

where $\Delta REC = \frac{\Delta Receivables}{Avg\,Total\,Assets}$,

$$\Delta INV = \frac{\Delta Inventories}{Avg\,Total\,Assets},$$

$$\Delta CS = \frac{\Delta Sales}{Sales(t)} - \frac{\Delta Receivables}{Receivables(t)},$$

$$\Delta EARN = \frac{Earnings(t)}{Avg\ Total\ Assets(t)} - \frac{Earnings(t-1)}{Avg\ Total\ Assets(t-1)}.$$

Independent variables in this study are the components of the Fraud Hexagon plus firm size. Each measurement indicator is detailed in Table 1.

This study employs panel data regression analysis using EViews 12 to test the hypotheses, as the data combines time series and cross-section data (Ghozali, 2018, p. 296). The equation model employed to analyze the impact of the fraud hexagon and firm size on fraudulent financial reporting is as follows:

$$FFR_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 NI_{it} + \beta_3 TATA_{it} + \beta_4 CEOEDU_{it} + \beta_5 CEOPIC_{it} + \beta_6 RPTAL_{it} + \beta_7 FSIZE_{it} + \varepsilon_{it}. \quad (5)$$

While the equation model employed to evaluate the impact of fraudulent financial reporting on firm value is as follows:

$$THEQ_{it} = \alpha + \beta_8 FFR_{it} + \varepsilon_{it}, \quad (6)$$

where *FFR* is the fraudulent financial reporting, *THEQ* represents firm value (Tobin's Q), α is constant regression coefficient, β1-8 represent independent variable regression coefficients, *ROA* is return on assets, *NI* is Nature of Income, *TATA* is the total accruals, *CEOEDU* is quality of CEO's, *CEOPIC* is the quantity of CEO's picture, *RPTAL* is related parties' transactions, and *FSIZE* is firm size.

In panel data regression, multiple tests are required to select the most appropriate regression model. Panel data regression model estimation includes the Common Effect Model (CEM), Fixed Effect Model (FEM) and Random Effect Model (REM). To select the most appropriate model from the three options, several stages of testing are conducted. First, the Chow Test to identify the best model between CEM and FEM, then the Hausman test to determine the best model between FEM and REM. If the results of these tests are inconsistent, the next step involves conducting the Lagrange Multiplier Test.

3. RESULTS AND DISCUSSION

Following the execution of the Chow Test, the Hausman Test, and the Lagrange Multiplier Test, it is determined that the Common Effect Model (CEM) is the most appropriate model for examining the impact of fraud hexagon and firm size on

Table 1. Independent variable indicators

Variable	Indicator	References
Pressure (Return on Assets)	$ROA = \frac{Net\ Profit\ after\ Tax}{Total\ Assets}$	Sudrajat et al. (2023)
Opportunity (Nature of Industry)	$NI = \frac{Receivable\ t}{Sales\ t} - \frac{Receivable\ t-1}{Sales\ t-1}$	Sari & Witosari (2022)
Rationalization (Total Accruals to Total Assets)	$TATA = \frac{Net\ Income\ from\ Operation - Cash\ Flow\ from\ Operation}{Total\ Assets}$	Bhaktiar & Setyorini (2021)
Capability (Quality of CEOs)	$CEOEDU = \frac{Number\ of\ Commissioners\ with\ Master's\ Degree}{Total\ Commissioners}$	Hartadi (2022)
Arrogance	Quantity of CEO's Picture	Maulina & Meini (2023)
Collusion (Related Parties Transactions)	$RPT\ AL = \frac{RPT\ Asset + RPT\ Liabilities}{Total\ Equity}$	Vousinas (2019)

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fraudulent financial reporting. Conversely, the appropriate estimation model to assess the impact of fraudulent financial reporting on firm value is the Random Effect Model (REM).

3.1. Effect of fraud hexagon and firm size on fraudulent financial reporting

The probability value of ROA and Nature of Industry (NI), respectively, 0.0007 and 0.0000 (p-value < 0.05), indicating that the pressure variable, represented by the financial target and the opportunity variable proxied by the ratio of NI, affects fraudulent financial reporting, thus H_1 and H_2 are accepted. In contrast, the remaining five variables show probability values greater than 0.05, which indicates that changes in these variables have no effect on reporting fraud, thus H_3, H_4, H_5, H_6, and H_7 are rejected.

The coefficient value of ROA shows a positive number, which is 1.914910, indicating that ROA influences FFR positively. The higher the ROA of a company, the more likely it is to engage in misleading financial reports. These results are supported by Sihombing and Panggulu (2022) and Sudrajat et al. (2023). Skousen et al. (2008) said that management performance in generating profits is assessed through Return on Assets (ROA), suggesting that higher ROA levels correlate with greater profit achievement by the company. Financial targets must be set properly because they can be a contributing factor to fraudulent activities. These targets should be realistic and within management's capabilities, avoiding extremes that could induce excessive pressure about their current objectives. The highest profit value in history should not be the goal; instead, the goal should be based on the average profit value that management can achieve (Sihombing & Panggulu, 2022).

Conversely, the coefficient value of Nature of Industry (NI) shows a negative number (–4.663288) indicating a negative correlation between NI and FFR. The probability values of the other variables in Table 1 exceed 0.05, thus H_3 to H_7 are rejected. A higher NI for a company reduces the likelihood of fraudulent financial reporting, suggesting a lower incidence of financial statement fraud. A more stable position of a company indicates good management, making it difficult for managers to manipulate financial statements. According to the opportunity factor of the fraud hexagon theory, the results of this proxy indicate that the high nature of the company does not create an opportunity for someone to manipulate a financial report. The results of this study align with previous studies by Agusputri and Sofie (2019) and Setyono et al. (2023).

Based on Table 2, the rationalization variable proxied by TATA does not influence FFR. This suggests that a company's total accruals do not contribute to the fraudulent financial reporting occurrence. These findings of this study align with those by

Table 2. Panel data regression 1 test results

Dependent Variable: FFR				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Probability**
C	0.691963	0.671370	1.030673	0.3094
ROA	1.914910	0.518885	3.690431	0.0007
NI	–4.663288	0.741383	–6.289988	0.0000
TATA	0.009007	0.521574	0.017268	0.9863
CEOEDU	–0.318790	0.265605	–1.200242	0.2377
CEOPIC	0.037374	0.076308	0.489786	0.6272
RPTAL	0.000242	0.075510	0.003199	0.9975
SIZE	–0.050642	0.062135	–0.815028	0.4203
R-squared	0.633127	Mean dependent var		0.136312
Adjusted R-squared	0.563719	S.D. dependent var		0.539486
S.E. of regression	0.356339	Akaike info criterion		0.933942
Sum squared resid	4.698166	Schwarz criterion		1.255127
Log likelihood	–13.01370	Hannan-Quinn criterion		1.053677
F-statistic	9.121762	Durbin-Watson statistics		2.455008
Prob(F-statistic)	0.000002			

Permatasari and Laila (2021), and Mukaromah and Budiwitjaksono (2021). The reason for this is that the TATA ratio reflects the company's operation, which depends on the overall company activity. Rationalization is generally related to the integrity of management. Sometimes, when the integrity of managers is high, it is common for managers to remain honest and rationalize their decisions, thereby they do not engage in fraudulent practices (Permatasari & Laila, 2021). Rationalization is also the most challenging element to identify, as it represents a justification mindset exhibited by management, staff, or the board of commissioners (Skousen et al., 2008).

The capability variable represented by CEO's education does not affect FFR (Table 2). The quality of CEOs, as determined by their educational background, does not affect the fraudulent financial reporting. This is because CEOs with higher education typically enhance organizational performance. Their capabilities are applied to effectively manage corporate operations and finances, with no tendency to engage in manipulation or other forms of financial reporting fraud (Agung et al., 2021). Gillies (2014) states that education was considered the most effective approach to enhancing the quality of the workforce. An educated person tends to think and act rationally while having a clearer understanding of their roles and responsibilities. This result aligns with studies by Agung et al. (2021) and Triyanto (2019) that state that CEO's education does not affect fraudulent financial reporting.

The arrogance variable, represented by the quantity of CEO's pictures, does not influence FFR (Table 2). This indicates that the CEO's pictures included in the company's annual report do not impact the occurrence of fraudulent financial reporting. This result aligns with studies by Hartadi (2022) and Setyono et al. (2023). Displaying a photo of the CEO in the company's annual report could be their intention to introduce their CEO to the public and their achievements, suggesting that the number of CEO photos displayed does not reflect the CEO's level of arrogance or superiority (Styono et al., 2023). Furthermore, the photos shown in the annual report reflect the CEO's involvement in company activities. This demonstrates that the CEO actively participates in all company activities, allowing the public to evaluate the CEO's commitment, dedication, and accountability in leadership (Ulfah et al., 2017).

The collusion variable proxied by the RPTAL does not significantly affect FFR as shown in Table 2. The changes in the related party transactions ratio of a company do not affect the potential for financial reporting fraud. This result is supported by Nugroho and Diyanty (2022) and Sudrajat et al. (2023). Nugroho and Diyanty (2022) state that managers may cooperate to conceal facts, making it difficult to identify collusion through information they provide in financial statements. Independent transaction verification procedures and other tools intended to detect fraud may go unnoticed when several managers band together. Thus, a more complex level of analysis is required to effectively uncover financial statement fraud.

Furthermore, the findings showed that firm size (SIZE) does not influence FFR (Table 2). This result is supported by research conducted by Handoko and Ramadhani (2017) and Siswantoro (2020), demonstrating that both small and large companies have the same potential to engage in financial reporting fraud. ACFE's (2020) report categorizes fraud according to firm size, revealing no significant difference between small and large companies. Small companies incur a median loss of US$150,000, whilst large companies incur a median loss of US$140,000.

3.2. Effect of fraudulent financial reporting on firm value

The probability value of Fraudulent Financial Reporting (FFR) shown in Table 3 is 0.0491 (p-value < 0.05), implying that fraudulent financial reporting affects firm value, thus *H8* is accepted. Furthermore, the coefficient value is negative (–0.422917). This result means that the relationship between the two is also negative, where companies that practice fraudulent financial reporting will cause the firm value to decrease. This finding aligns with studies by Kumalasari (2023), Elviani et al. (2020), and Rukmana (2018), which suggest firm value will drop over time as companies engage in more aggressive earnings management. This act can lead to concerns and loss of investors' trust in the quality of the financial statements issued by the company.

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Table 3. Panel data regression 2 test results

Dependent Variable: THEQ				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Probability**
C	0.824382	0.263990	3.122784	0.0032
FFR	–0.422917	0.208818	–2.025288	0.0491
Weighted Statistics				
R-squared	0.091892	Mean dependent var		0.107397
Adjusted R-squared	0.070773	S.D. dependent var		0.264311
S.E. of regression	0.254787	Sum squared resid		2.791398
F-statistic	4.028436	Durbin-Watson statistics		1.627851
Prob(F-statistic)	0.051052	Second-Stage SSR		2.810554
Instrument rank	8	Prob(J-statistic)		0.732372

CONCLUSION

This study aims to analyze critical aspects influencing a company's going concern, specifically focusing on fraudulent financial reporting (FFR) and firm value from the perspective of fraud hexagon and firm size. The results indicate that pressure and opportunity affect the occurrence of FFR, while rationalization, capability, arrogance, collusion, and firm size show no significant impact. Additionally, the findings show that FFR affects firm value negatively, indicating that companies engaging in FFR often experience a reduction in firm value. Pressure on management to obtain financial targets or high ROA may encourage FFR practices, whereas stability of the company's situation reflects good corporate governance and resistance to financial statement manipulations. Furthermore, the decrease in firm value due to FFR practices raises investor concerns, diminishing confidence in the credibility of financial statement information issued by the company.

Stakeholders of mining sector companies in Indonesia are required to pay more attention to the stages of determining company targets, particularly ROA, to prevent the emergence of pressures leading to FFR practices. Determination of company targets must be followed by considering various factors, including company performance over past and current periods, market conditions, domestic and international conflicts, social, economic, cultural, and political factors. Especially during the COVID-19 pandemic, which has had a detrimental impact on both domestic and international mining markets. A company's performance is reflected in the condition of the company's shares; thus, a company must also maintain a good governance and control system to prevent fraud and support the company's going concern.

AUTHOR CONTRIBUTIONS

Conceptualization: Amiruddin Junus, Sri Sundari.
Data curation: Amiruddin Junus, Siti Zakina Azzahra.
Formal analysis: Amiruddin Junus, Sri Sundari.
Funding acquisition: Amiruddin Junus.
Investigation: Amiruddin Junus.
Methodology: Amiruddin Junus, Sri Sundari.
Project administration: Amiruddin Junus, Siti Zakina Azzahra.
Resources: Amiruddin Junus, Sri Sundari.
Software: Amiruddin Junus, Siti Zakina Azzahra.
Supervision: Amiruddin Junus.
Validation: Amiruddin Junus, Siti Zakina Azzahra.
Visualization: Amiruddin Junus, Sri Sundari.
Writing – original draft: Amiruddin Junus, Sri Sundari, Siti Zakina Azzahra.
Writing – review & editing: Amiruddin Junus, Sri Sundari, Siti Zakina Azzahra.

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