

FRAUDULENT SIGNALS FROM WITHIN: THE TRIANGLE OF PRESSURE, OPPORTUNITY, AND RATIONALIZATION IN FINANCIAL REPORTING

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Abstract

This study explores the influence of financial stability, financial distress, and accrual on fraudulent financial reporting, with managerial ownership as a moderating variable, within the framework of the fraud triangle theory. Each independent variable represents a specific element of the fraud triangle: financial stability reflects pressure, financial distress represents opportunity, and accrual reflects rationalization. This study analyzes 320 firm-year data points derived from listed manufacturing firms within Indonesia's consumer cyclicals sector over the 2020–2023 period. To investigate the relationships among the variables, the research employs panel data estimation techniques, utilizing the Fixed Effects Model alongside Moderated Regression Analysis. The results reveal that financial distress and accrual significantly affect fraudulent financial reporting, though both show negative coefficients. Notably, the negative direction of accrual does not indicate lower fraud risk, but rather the use of negative accruals—such as income smoothing or big bath accounting—which are conservative yet still manipulative. Financial stability shows no significant effect. Managerial ownership positively influences fraud and significantly strengthens the effects of financial distress and accrual, emphasizing the entrenchment effect. These findings highlight how elements of the fraud triangle interact with internal governance mechanisms, offering practical implications for auditors, regulators, and investors to improve fraud detection and prevention strategies.

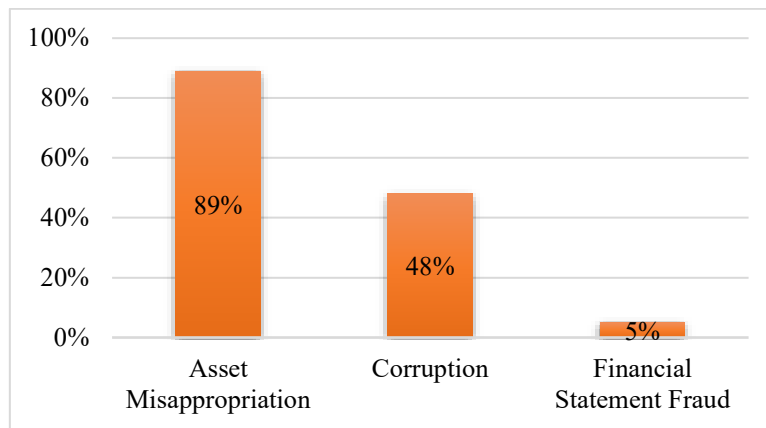
Keywords: fraud triangle, fraudulent financial reporting, financial distress

INTRODUCTION

Financial statements represent the final outcome of accounting recording procedures that reflect the business's operational activities within an entity. These statements not only serve as a form of accountability for the company's performance (Kuang & Natalia, 2023), but also contain crucial information regarding operational activities (Anisykurlillah et al., 2022) and financial stability (Utomo et al., 2019). Such information serves as a fundamental basis for stakeholders to evaluate performance, assess sustainability prospects (Khomariah & Khomsiyah, 2023), and make strategic decisions. Therefore, compliance with applicable regulations becomes essential to ensure that the information presented reflects the entity's true financial condition, supports optimal decision-making, and prevents the occurrence of fraud (Rifat et al., 2024).

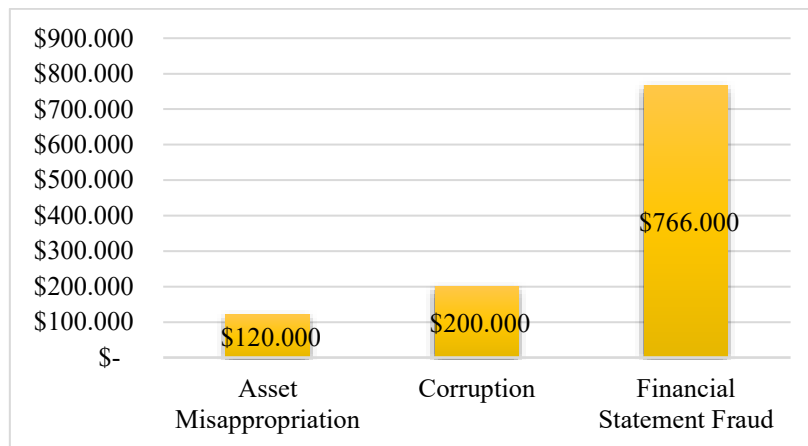
When financial performance becomes the primary benchmark of success, pressure to present favorable outcomes often triggers deviations in financial reporting. In efforts to maintain performance and attract investor attention amid increasingly intense business competition—particularly due to cross-border expansion (Setyono et al., 2023), many firms are driven to alter financial reports to align with stakeholder expectations (Riviera et al., 2024). This phenomenon is widely recognized as fraudulent financial reporting, which, according to the Association of Certified Fraud Examiners (2024), constitutes unlawful acts committed by internal or external parties with the

intent of securing personal or collective gain at the expense of others. Audit Standard (SA) 240 issued by Institut Akuntan Publik Indonesia (2021) identifies three key elements that trigger fraud: (1) incentives or pressure, where management is driven to meet targets for personal benefit; (2) opportunity, arising from weak internal controls that allow fraud to occur; and (3) rationalization, the individual’s justification of deviant actions. These three elements comprise the framework known as the fraud triangle (Doan & Ta, 2023; Fitri et al., 2019). Manipulation is typically carried out by altering financial elements, causing the reports to misrepresent actual conditions, thereby influencing stakeholder perception and concealing critical information (Al-Rizky et al., 2024). Such actions are fueled by information asymmetry, which creates opportunities for the dissemination of misleading information (Nejad et al., 2024).



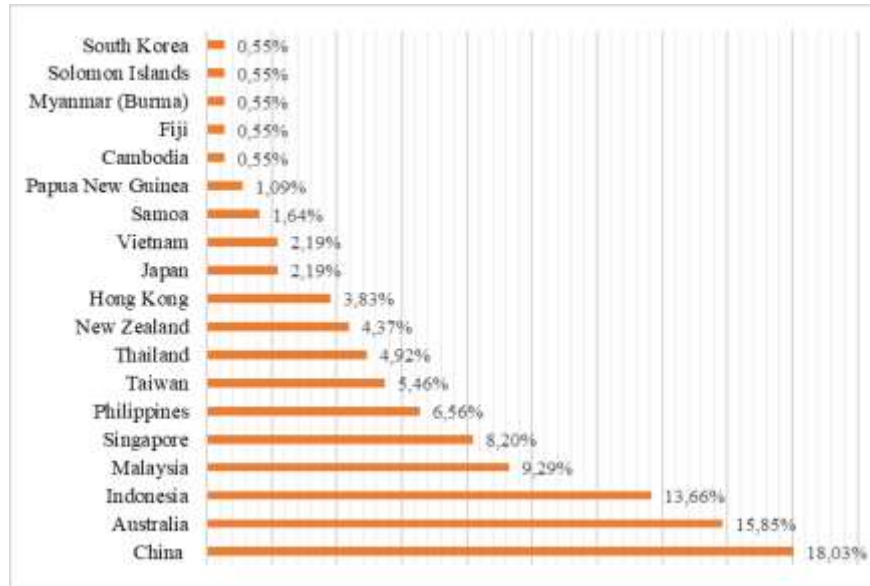
Source: Association of Certified Fraud Examiners (2024)

Figure 1. The Percentage of Cases Based on Fraud Classification



Source: Association of Certified Fraud Examiners (2024)

Figure 2. Average Loss Based on Fraud Classification



Source: Association of Certified Fraud Examiners (2024)

Figure 3. Percentage of Fraud Occurrences in the Asia-Pacific Region

The pervasive challenge of fraudulent financial reporting is underscored by the findings of the Report to the Nations on Occupational Fraud 2024 published by the Association of Certified Fraud Examiners (2024). According to the report, global organizations suffer estimated annual revenue losses of around 5% due to fraudulent activities. Drawing from 1,981 investigated cases spanning 138 countries, the study reports total losses of USD 3.1 billion. These cases fall into three primary categories: asset misappropriation (comprising 89% of cases with an average loss of USD 120,000), corruption (48% of cases with an average loss of USD 200,000), and financial statement fraud, which, despite constituting only 5% of the cases, resulted in the highest average loss—approximately USD 766,000 per instance. In the Asia-Pacific region, Indonesia ranks third with 25 cases among the 183 incidents reported, with an average loss per case reaching USD 200,000. Notably, while most fraud cases were perpetrated by managers, the largest losses were associated with fraud committed by executives or company owners. The report also indicates a significant increase compared to the 2022 edition, with asset misappropriation rising by 20%, corruption by 33%, and financial statement fraud by 29%, reflecting the suboptimal implementation of ethical standards in business and financial practices across many institutions. These facts underscore that fraud remains a serious issue with far-reaching impacts on business continuity, economic stability, and global public trust.

Recent fraud cases in Indonesia further emphasize the urgency of enhanced oversight in financial reporting practices. A notable example is PT Indofarma Tbk, which recorded losses for three consecutive years from 2020 to 2023. The Audit Board of the Republic of Indonesia indicated fraudulent financial practices within its subsidiary, PT Indofarma Global Medika (IGM), responsible for distributing Indofarma's products. Internal investigations revealed that although IGM had received payments from third parties, it failed to remit approximately IDR 470 billion to the parent company (Rahman, 2024). Moreover, CNN Indonesia (2024) reported nine types of irregularities, including inventory inflation, fabricated transactions, and fictitious entries. One of the largest losses occurred in the Fast-Moving Consumer Goods (FMCG) business unit, amounting to IDR 157.33 billion, with total fraud-related losses estimated at IDR 436.87 billion, including state losses of approximately IDR 371.83 billion. Beyond the fiscal impact, this crisis also affected employee rights and forced the company to liquidate assets to meet overdue obligations. A similar case was uncovered at PT Waskita Karya, through its subsidiary PT Waskita Beton Precast, where the Attorney General's Office

identified misuse of Supply Chain Financing (SCF) funds through the manipulation of fictitious project payment evidence between 2016 and 2020. The total state loss in this case, as estimated by the Financial and Development Supervisory Agency, reached IDR 2.54 trillion (Binekasri, 2023).

This research investigates the effects of financial stability, financial distress, and accruals on fraudulent financial reporting, with each serving as a proxy for a specific dimension of the fraud triangle—namely, pressure, opportunity, and rationalization. Financial stability is proxied by asset growth (ACHANGE), as stable asset levels reflect a firm's ability to manage and sustain its operations consistently (Riinggi & Novita, 2023). Significant asset fluctuations may attract public and external scrutiny, such as from investors and creditors, thereby generating pressure on management (Irwandi et al., 2019). Financial distress is measured using the Zmijewski score, which captures a firm's financial difficulties (Rachmawati & Sulbahri, 2020). Such conditions typically reflect weak internal controls and create opportunities for financial statement manipulation to maintain business continuity (Andrew et al., 2022). Lastly, accrual is assessed through the Total Accrual to Total Assets (TATA) ratio, reflecting the rationalization aspect, where management justifies deviant reporting behavior under the guise of accounting adjustments or business strategy (Rifat et al., 2024). These three variables are selected based on both theoretical foundations and empirical evidence that suggest their strong association with the tendency toward manipulation in financial reporting.

In addition to examining the influence of financial stability, financial distress, and accrual as independent variables on fraudulent financial reporting, this study also considers the potential moderating role of managerial ownership. The inclusion of this moderating variable constitutes a novelty of the study, as managerial ownership may significantly weaken oversight mechanisms over financial performance. In certain contexts, particularly within the entrenchment region (moderate ownership levels), managers holding substantial shares may become less responsive to governance mechanisms and more inclined to act in self-interest, including manipulating financial statements to maintain their position (Shan et al., 2024; Sugiyanto et al., 2021). Therefore, managerial ownership is presumed to reinforce managerial tendencies to engage in financial reporting manipulation, especially when the firm is under pressure, faced with opportunities, or justifies its actions through rationalization.

This research further contributes to the literature by introducing novelty through its focus on manufacturing firms operating within the consumer cyclicals sector and listed on the Indonesia Stock Exchange (IDX) over the 2020–2023 timeframe. Most prior studies have focused on other sectors such as construction (Riinggi & Novita, 2023), property and real estate (Jati & Anisa'Setiyani, 2023), state-owned enterprises (Oktavia & Rinaldo, 2024), mining (Sari et al., 2022), non-financial firms (Fitri et al., 2019), or broader scopes such as all listed companies in Thailand (Yarana, 2023), Vietnam (Doan & Ta, 2023), and stock indices like the LQ45 (Anisykurlillah et al., 2022; Setyono et al., 2023). Studies specifically addressing the manufacturing sector remain limited, often covering only general three-year periods (Kuang & Natalia, 2023; Rifat et al., 2024) or focusing on specific sub-sectors such as food and beverages (Ghaisani & Supatmi, 2023). The selection of this sector is based on the Association of Certified Fraud Examiners (2020) report, which ranks manufacturing as the fourth-highest sector in terms of fraud-related losses. Moreover, data from Kementerian Komunikasi dan Digital (2023) indicate that Indonesia is among the top ten global contributors to manufacturing output. Given its strategic role, fraudulent practices in the manufacturing sector have implications not only for the national economy but also for global economic stability.

Considering the complexity and systemic impact of fraudulent financial reporting, this study is expected to contribute both theoretically and practically. Theoretically, it extends the financial accounting and auditing literature by re-examining the fraud triangle theory within the context of manufacturing companies in the consumer cyclicals sector in Indonesia, while also enriching the analysis through the incorporation of a moderating variable that has been relatively underexplored. The study provides deeper insights into the dynamics of pressure, opportunity, and rationalization that influence fraudulent financial reporting practices. Practically, the findings offer valuable input for regulators, auditors, and corporate management in designing more effective internal control

systems, particularly for the early detection of fraud risks. Furthermore, the results can serve as risk indicators for investors and other stakeholders in the decision-making process, while encouraging firms to adopt greater transparency and accountability in presenting financial information.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

The Relationship between Financial Stability and Fraudulent Financial Reporting

Within the framework of agency theory, the conflict of interest between management and shareholders is a critical determinant of fraudulent actions, particularly when executives are compelled by performance demands to maintain the firm's financial stability with the aim of preserve the confidence of investors and creditors (Riviera et al., 2024). Disruptions in financial stability often create pressure on management to portray a favorable performance, even if it does not reflect the firm's actual condition. This pressure may lead to manipulative actions, such as adjusting asset values or deferring expense recognition, to maintain the appearance of stable financial reports (Kuang & Natalia, 2023; Riinggi & Novita, 2023). Financial stability, therefore, serves as an indicator of pressure that can trigger fraud, as managers feel compelled to sustain a positive perception of the company's performance in the public eye. Irwandi et al. (2019) urther assert that significant fluctuations in corporate assets, especially amid economic uncertainty, often provoke financial statement manipulation as a reaction to heightened expectations from investors and creditors. The result is in line with prior research by Setyono et al. (2023), which indicate that when a company's performance falls below expectations or industry averages, management tends to distort financial figures to demonstrate that the business is still operating effectively. Based on this reasoning, the first hypothesis proposed is:

H1: Financial stability has a positive effect on fraudulent financial reporting.

The Relationship between Financial Distress and Fraudulent Financial Reporting

Financial distress refers to a critical financial condition in which a company struggles to meet its financial obligations or sustain its operating cash flows—circumstances which, if unresolved, may lead to bankruptcy (Andrew et al., 2022). Within the agency theory framework, conflicts of interest between principals and agents become increasingly pronounced when management, as agents, possess better knowledge of the firm's internal conditions than owners or investors, creating information asymmetry. Under pressure to uphold the firm's reputation and maintain market confidence, managers may exploit this gap by manipulating financial statements as a form of moral hazard, justified as an effort to "save" the company (Nurul & Fitria, 2023). Andrew et al. (2022) found that managers often report short-term favorable performance to obscure deteriorating financial realities. Similarly, Rainingtyas et al. (2021) emphasize that high levels of financial distress are a significant driver of fraudulent financial reporting, as companies attempt to construct a positive image for investors, creditors, and lenders. Furthermore, Lastrini & Suartana (2023) argue that managers with decision-making authority frequently abuse their power to commit fraud under financial pressure. This is reinforced by Christian (2022), who found that the greater the extent of financial hardship faced by the company, the higher the likelihood of corporate fraud. Based on these findings, the following hypothesis is proposed:

H2: Financial distress has a positive effect on fraudulent financial reporting.

The Relationship between Accrual and Fraudulent Financial Reporting

From the perspective of the Fraud Triangle Theory, accruals are closely linked to the element of rationalization, wherein managers justify fraudulent actions as legitimate decisions aimed at

preserving the company's financial image. The accrual principle, which allows flexibility in recording revenues and expenses based on transaction timing, provides opportunities for management to manipulate financial reports without overt violations (Kuang & Natalia, 2023; Rifat et al., 2024). This risk is exacerbated when managers possess superior information and exploit reporting discretion to pursue personal objectives, in line with agency theory (Jati & Anisa'Setiyani, 2023). Managerial discretion over accrual levels—particularly discretionary accruals—becomes a key instrument for engaging in fraudulent financial reporting. High accrual values may indicate efforts to mislead stakeholders by portraying performance more favorably than the firm's actual condition (Anisykurlillah et al., 2022). This is consistent with findings by Yarana (2023), who noted that the greater the variation in accruals, the higher the likelihood of accounting fraud. Rianggi & Novita (2023) further emphasize that high accrual levels increase the tendency for managerial manipulation, aiming to create an illusion of sound decision-making, even if such actions deviate from ethical norms. Based on this reasoning, the following hypothesis is proposed:

H3: Accrual has a positive effect on fraudulent financial reporting

The Moderating Role of Managerial Ownership in Fraudulent Financial Reporting

Managerial ownership denotes the percentage of a firm's equity owned directly by its executive management, which is theoretically intended to align managerial interests with those of shareholders. However, at certain levels—particularly within the entrenchment range—managerial ownership may weaken the effectiveness of corporate governance and internal monitoring mechanisms. This can enable managers to act opportunistically, including engaging in financial reporting manipulation (Shan et al., 2024). Mawardi et al. (2021) argue that increased managerial entrenchment is associated with a decline in earnings quality, as entrenched managers possess the power to obscure the true financial condition of the firm. Similarly, Sormin (2021) finds that higher levels of managerial ownership can undermine reporting integrity due to conflicts of interest and pressure to present favorable results. In such cases, managerial ownership may manifest as a form of overconfidence or arrogance, where managers perceive themselves as immune to internal control systems, thereby increasing the risk of fraudulent behavior (Randi & Faradiza, 2022). Furthermore, greater equity stakes provide managers with privileged access to internal information and strategic authority, which may be exploited to manipulate financial disclosures (Mahandari et al., 2024; Solikhah & Cahyaningtyas, 2024). Based on these considerations, this study proposes the following hypothesis:

H4: Managerial ownership has a positive effect on fraudulent financial reporting

Although managerial ownership is theoretically designed to align the priorities of corporate executives and company owners, under certain conditions it may exacerbate opportunistic behavior—especially when ownership levels lead to managerial entrenchment (Shan et al., 2024). In such scenarios, managers may feel insulated from oversight, which increases the likelihood of engaging in earnings manipulation. This risk becomes more pronounced under financial pressure. For instance, when financial stability is compromised, executives might engage in financial statement manipulation in order to maintain investor confidence (Kuang & Natalia, 2023; Riviera et al., 2024). Entrenched managers often perceive such manipulations not only as necessary, but also as justifiable, thereby intensifying how financial pressure contributes to fraudulent behavior in financial statements. Similar tendencies are observed under conditions of financial distress, characterized by liquidity issues or mounting debt obligations. Prior studies have demonstrated that financial distress can serve as a trigger for fraudulent behavior (Andrew et al., 2022; Lastrini & Suartana, 2023; Rainingtyas et al., 2021). This behavior is further reinforced when powerful managers leverage their authority to conceal the true financial condition of the company (Christian, 2022). Additionally, the flexibility inherent in accrual accounting offers significant opportunities for manipulation—particularly through the use of discretionary accruals (Anisykurlillah et al., 2022; Yarana, 2023).

Managers with substantial ownership stakes may rationalize such actions as necessary for maintaining external appearances, especially in times of financial strain (Jati & Anisa’Setiyani, 2023; Rifat et al., 2024). As supported by prior research, managerial entrenchment is often associated with diminished financial reporting integrity and increased opportunities for abuse of power (Mahandari et al., 2024; Mawardi et al., 2021; Randi & Faradiza, 2022; Solikhah & Cahyaningtyas, 2024). Based on this rationale, the following hypotheses are proposed:

H6: Managerial ownership strengthens the positive effect of financial stability on fraudulent financial reporting

H7: Managerial ownership strengthens the positive effect of financial distress on fraudulent financial reporting

H8: Managerial ownership strengthens the positive effect of accrual on fraudulent financial reporting

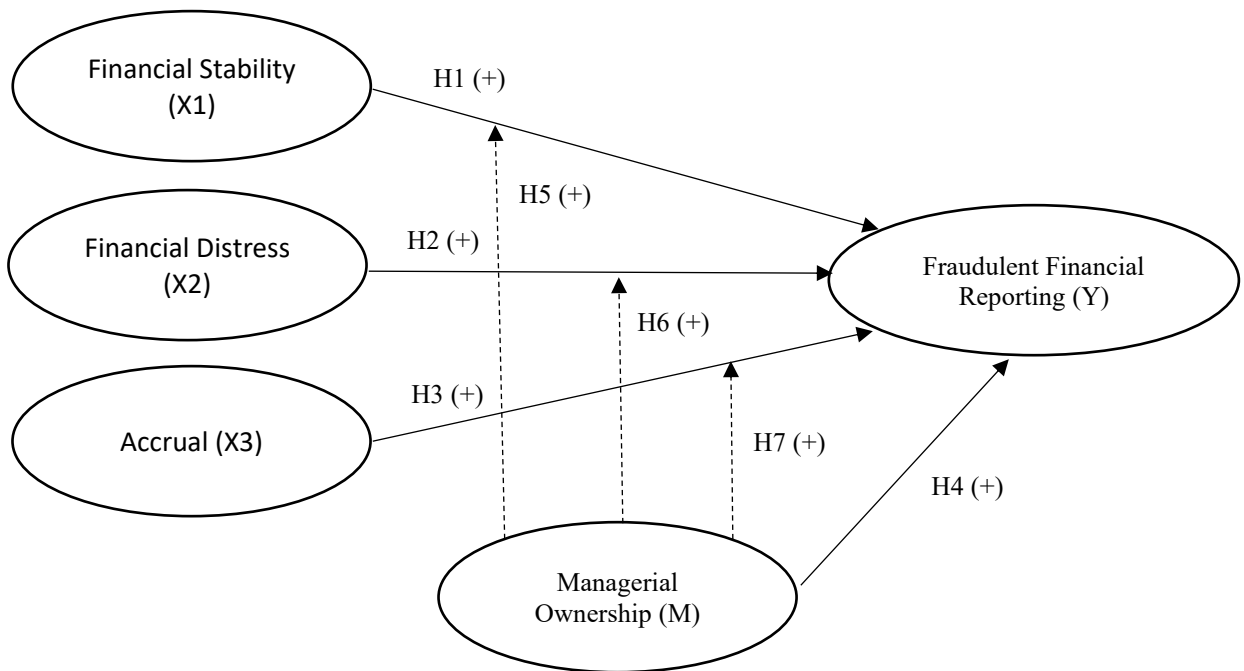


Figure 4. Conceptual Framework

RESEARCH METHODS

This research adopts a quantitative approach, utilizing secondary data sourced from the annual reports of manufacturing firms in the consumer cyclicals sector listed on the Indonesia Stock Exchange (IDX) between 2021 and 2024. The sample was determined using a purposive sampling method, guided by specific selection criteria.

Tabel 1. Sample Selection Criteria

Description	Total
Consumer cyclicals companies listed on the IDX	166
Did not publish complete annual financial reports for 2021–2024	(86)
Final research sample (total over 4 years)	320

Source: Indonesia Stock Exchange (2025)

The main variables analyzed in this study are presented in the following table:

Tabel 2. Variable Measurement

Variable	Code	Measurement	Reference
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Financial Statement Fraud	FRD	F-Score = <i>Accrual Quality</i> + <i>Financial Performances</i>	(Riaggi & Novita, 2023; Setyono et al., 2023)
Financial Stability	FS	Asset Growth (ACHANGE) = $\frac{\text{Total Assets } (t) - \text{Total Asset } (t-1)}{\text{Total Assets } (t-1)}$	(Riaggi & Novita, 2023; Setyono et al., 2023)
Financial Distress	FD	Zmijwski Model = $-4.3 - 4.5 \times ROA + 5.7 \times DAR + 0.004 \times \text{Current Ratio}$	(Ambarwati & Sriwardany, 2021; Apsari et al., 2024; Rachmawati & Sulbahri, 2020)
Accrual	ACR	Total Accrual to Total Assets (TATA) = $\frac{\text{Net Income} - \text{Cashflow from Operation}}{\text{Total Assets}}$	(Kuang & Natalia, 2023; Riaggi & Novita, 2023; Rifat et al., 2024)
Managerial Ownerhsip	MO	Proportion of common shares owned by managers = $\frac{\text{Shares Owned by Management}}{\text{Total Outstanding Shares}}$	(Randi & Faradiza, 2022; Sormin, 2021)

Panel data regression analysis in this study was conducted using Moderated Regression Analysis (MRA) through EViews 9. Prior to model estimation, a series of diagnostic procedures were carried out, including multicollinearity assessment and model selection via the Chow test, Hausman test, and Lagrange Multiplier test, to identify the most suitable estimation model. A hypothesis was considered supported when the regression coefficient aligned directionally with the proposed hypothesis and demonstrated statistical significance at a p-value below 0.05.

RESULTS AND DISCUSSION

Accurate regression modeling requires research data that meet the classical assumptions. In this panel data analysis, a multicollinearity test was conducted to ensure model reliability. The results indicated that the model did not suffer from multicollinearity issues, as evidenced by correlation coefficients between variables not exceeding the 0.85 threshold. Furthermore, model selection was carried out through model estimation tests. The results revealed that the most appropriate model for both the regression equation before and after the interaction with the moderating variable was the Fixed Effect Model.

Table 3. Descriptive Statistics of Research Variables

FRD	FS	FD	ACR	MO
-97,711362	1,794597	5,860610	-0,195033	0,155901

Source: Processed data using EViews 9

Table 4. Regression Results

Variable Relationship	Coefficient	p-value	Effecr
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FS → FRD	1,396066	0,9737	Not Significant
FD → FRD	-0,340717	0,0000	Significant Negative
ACR → FRD	-3,575993	0,0000	Significant Negative
MO → FRD	7191,541	0,0000	Significant Positive
FS + MO → FRD	-5925,585	0,1256	Not Significant
FD + MO → FRD	2797,112	0,0000	Significant Positive
ACR + MO → FRD	34807,02	0,0000	Significant Positive

Source: Processed data using EViews 9

The Effect of Financial Stability on Fraudulent Financial Reporting

The regression findings reveal that the financial stability (FS) variable does not exert a statistically significant influence in relation to the incidence of financial reporting fraud, with a coefficient of 1.396066 and a probability value of 0.9737. Consequently, the first hypothesis (H1) is rejected. This finding contradicts the agency theory framework, which posits that pressure arising from declining financial stability may drive management to manipulate financial statements in order to maintain investor and creditor confidence (Kuang & Natalia, 2023; Riinggi & Novita, 2023; Riviera et al., 2024). However, the result aligns with the studies by Achmad et al. (2022), Anisykurlillah et al. (2022), and Rifat et al. (2024), which suggest that financial stability does not necessarily trigger fraud.

A logical explanation for this non-significant effect is that the firms included in the study were generally in a stable financial condition, as reflected in the positive mean value of asset change (ACHANGE). This indicates that there was no substantial financial pressure prompting management to commit fraud in financial reporting. Additionally, effective monitoring mechanisms may mitigate the potential for fraud even when internal pressures exist. Therefore, the findings of this study reject the fundamental assumptions of agency theory and contradict the results of Irwandi et al. (2019) and Setyono et al. (2023), who found that a decline in financial stability significantly increases the likelihood of managerial fraud.

The Effect of Financial Distress on Fraudulent Financial Reporting

The regression analysis reveals that the financial distress (FD) variable carries a coefficient of -0.340717 and a p-value of 0.0000, signifying a significant negative relationship with fraudulent financial reporting. This implies that as a company's financial distress intensifies, the likelihood of management engaging in financial statement fraud tends to decrease. Consequently, the second hypothesis (H2) is rejected. Logically, this finding can be explained by the fact that companies facing financial distress tend to focus on operational recovery and cash flow improvement, thereby allocating resources and managerial attention toward efficiency and restructuring rather than manipulating financial reports (Sadjiarto et al., 2023). Moreover, management in financially critical situations is often subject to stricter oversight from auditors, regulators, and other external parties, which limits opportunities for committing fraud (Mukhtaruddin et al., 2022).

In this context, agency theory is rejected because it does not account for the role of robust internal and external controls that constrain managerial discretion during periods of distress. This result contradicts past empirical evidence, such as that presented by Andrew et al. (2022), Christian (2022), Lastrini & Suartana (2023), Nurul & Fitria (2023), and Rainingtyas et al. (2021)—which argue that financial distress increases the likelihood of fraud, as management may be motivated to create a favorable performance image to maintain market trust. Thus, although financial distress is theoretically viewed as an opportunity factor within the fraud triangle framework that may trigger fraudulent behavior, these findings suggest that its influence is not linear and may vary depending on the firm's context and control environment.

The Effect of Accrual on Fraudulent Financial Reporting

The analysis results indicate that the accrual (ACR) variable exhibits a coefficient of -3.575993 with a p-value of 0.0000. While the initial hypothesis proposed a positive link between accruals and fraudulent financial reporting, the empirical evidence instead demonstrates a statistically significant negative relationship. While this result appears directionally contradictory, it can be explained by the negative average accrual value (-0.1950), which reflects a tendency among firms to engage in conservative accounting practices, such as intentional income reduction through income smoothing (Burlacu et al., 2024) or big bath accounting (Mielcarz et al., 2023).

Such negative accruals do not necessarily reflect healthy financial reporting but may be used strategically by management in response to external pressures such as the pandemic, leadership transitions, or market expectations, as identified by Mielcarz et al. (2023) and Yaşar & Yalçın (2024). This practice has also been documented in the domestic context, where negative accrual-based earnings management has been linked to fraudulent financial reporting, as demonstrated in empirical studies undertaken by Burlacu et al. (2024) and Tarjo et al. (2022). Therefore, although the relationship is statistically negative, the findings still support the substance of the hypothesis that accruals are closely associated with the tendency to commit financial reporting fraud—particularly when used as a conservative manipulation tool by management. Accordingly, H3 is accepted.

The Effect of Managerial Ownership on Fraudulent Financial Reporting

The coefficient for the moderating variable managerial ownership on fraudulent financial reporting is 7191.541 with a significance level of 0.0000, indicating that managerial ownership significantly increases the potential for fraudulent financial reporting. These empirical results lend support to H4, suggesting a direct positive relationship between managerial ownership and fraudulent financial disclosure, particularly when the ownership proportion falls within the entrenchment range (12–18%). In this study, the average level of managerial ownership was 15.59%, a range where ownership may reduce the effectiveness of monitoring mechanisms and increase the opportunity for managers to act opportunistically, including manipulating financial reports (Shan et al., 2024). This condition reflects a conflict of interest and a perceived immunity to internal controls, thereby escalating the risk of fraud (Randi & Faradiza, 2022; Sormin, 2021). results are in agreement with those of Mahandari et al. (2024), Mawardi et al. (2021), dan Solikhah & Cahyaningtyas (2024), who demonstrate that high managerial ownership deteriorates the quality of financial reporting and increases the risk of information misuse, thus intensifying the potential for fraud.

Managerial Ownership as a Moderating Variable in the Association Between Financial Stability and Financial Reporting Fraud

The interaction term between financial stability and managerial ownership produces a coefficient of -5925.585 with p-value of 0.1256 suggests that managerial ownership does not exert a significant moderating influence on the effect of financial stability on fraudulent reporting practices. Therefore, the fifth hypothesis (H5) is rejected. A plausible explanation for this result is that financial stability itself was previously found to have no significant impact on fraudulent reporting, suggesting that the sampled companies were generally in a stable financial condition and not subject to significant pressure that would motivate managerial manipulation. This is reflected in the positive average asset growth observed in the sample (Achmad & Ghozali, 2022; Anisykurlillah et al., 2022; Rifat et al., 2024). In such conditions, although managerial ownership may theoretically promote opportunistic behavior through entrenchment effects (Mawardi et al., 2021; Shan et al., 2024), the absence of tangible pressure weakens the impetus for fraudulent behavior. Hence, the non-significance of the moderating effect suggests that managerial ownership is more relevant in amplifying fraudulent tendencies when combined with substantial indicators of financial pressure.

Managerial Ownership as a Moderating Variable in the Association Between Financial Distress and Financial Reporting Fraud

The interaction between financial distress and managerial ownership produces a coefficient of 2797.112 with a significance level of 0.0000, signifying that managerial ownership significantly amplifies the impact of financial distress on fraudulent financial reporting. Thus, the sixth hypothesis (H6) is accepted. This finding is particularly noteworthy because it contrasts with the earlier result in this study, which showed that financial distress independently has a significant negative effect on fraud. In the absence of moderation, financially distressed firms tend to be more cautious, focus on operational recovery, and are subject to stricter external oversight, thereby reducing the tendency to engage in financial manipulation (Mukhtaruddin et al., 2022; Sadjiarto et al., 2023). However, when financial distress occurs within firms characterized by high levels of managerial ownership, this relationship shifts to become positive and significant. This suggests that managers holding substantial equity stakes may feel more empowered to act opportunistically, using financial pressure as a rationale for manipulation in order to preserve corporate image and continuity.

This result is consistent with findings by Andrew et al. (2022), Christian (2022), and Rainingtyas et al. (2021), which demonstrate that financial distress can foster fraudulent practices, particularly when managers possess full authority and access to reporting systems. In such situations, entrenchment acts as a catalyst that transforms distress from a deterrent into an opportunity for fraud. Therefore, this result reinforces the hypothesis that managerial ownership amplifies the relationship between financial distress and fraudulent financial reporting.

Managerial Ownership as a Moderating Variable in the Association Between Accruals and Financial Reporting Fraud

The interaction between accruals and managerial ownership yields a coefficient of 34,807.02 with a probability value of 0.0000, indicating that managerial ownership significantly strengthens the influence of accruals on fraudulent financial reporting and alters the relationship from initially negative to significantly positive. Hence, the seventh hypothesis (H7) is accepted. This finding reinforces the argument that managerial ownership within the entrenchment range provides greater latitude for management to exploit accounting flexibility (Shan et al., 2024), particularly through discretionary accruals as a tool for financial statement manipulation (Mahandari et al., 2024).

The earlier result showed that accruals had a significant negative effect on fraud, which was attributed to managers using negative accruals conservatively, such as in big bath accounting and income smoothing practices (Burlacu et al., 2024; Mielcarz et al., 2023). However, with substantial managerial shareholding, managers may feel insulated from internal controls, turning what was initially a defensive use of negative accruals into a vehicle for more aggressive manipulation. This is consistent with findings by Anisykurlillah et al. (2022) and Jati & Anisa' Setiyani (2023), which suggest that managers with vested interests in firm performance tend to use accruals to construct a favorable image of financial health. Thus, this result confirms that managerial ownership not only strengthens the relationship between accruals and fraud, but can also reverse the direction of influence, transforming accruals from a conservative instrument into a significant avenue for financial misrepresentation.

CONCLUSION

This study investigated the effect of financial stability, financial distress, and accrual on fraudulent financial reporting, with managerial ownership as a moderating variable. The findings indicate that while financial distress and accrual significantly influence fraudulent financial reporting, the direction of their relationships diverges from the initial hypotheses. Financial stability was found to be insignificant. Interestingly, the negative coefficient of accrual does not imply a reduction in fraud risk, but rather reflects the use of negative accrual strategies—such as income smoothing or big bath accounting—which are still manipulative in nature. Thus, the result supports the notion that accrual remains closely associated with fraud, especially when used to distort reported performance

in a conservative manner. Furthermore, managerial ownership was found to directly increase the likelihood of fraud and significantly moderate the effects of both financial distress and accrual on fraudulent financial reporting.

The practical implications of this research are crucial for stakeholders, especially company management, regulators, and auditors. Strong internal control systems must be designed not only to detect signs of fraud but also to consider the ownership structure as a potential risk factor. Monitoring mechanisms should be reinforced, particularly in companies with entrenched managerial ownership, as this study confirms its enabling role in facilitating fraudulent behavior under financial pressure.

Despite its contributions, this study has several limitations. It focuses only on one sector (consumer cyclicals manufacturing) and uses secondary data, which may not fully capture qualitative factors such as corporate culture, management ethics, or informal governance practices that could influence fraud. Moreover, the sample period was limited to 2020–2023, which may not reflect longer-term dynamics or post-pandemic effects.

Future research is encouraged to expand the scope across multiple industries and consider additional moderating variables such as audit committee characteristics, corporate governance indices, or external auditor quality. Furthermore, qualitative approaches such as interviews or case studies can provide deeper insights into the motivations and rationalizations behind fraudulent practices that are difficult to observe through secondary data alone.

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