



Do Fraud Pentagon Factors Explain Financial Statement Fraud? Evidence from Indonesian Manufacturing Firms

Maria Leontina Karina Pajur^{1*}, Fidiana Fidiana², David Efendi³

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ABSTRACT

This study aims to analyze the influence of factors in the fraud pentagon theory, namely financial targets, financial stability, external pressure, ineffective monitoring, change in auditor, change in director, and the frequency of CEO pictures, on financial statement fraud in manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2023 period. This study employs a quantitative method using secondary data in the form of companies' annual financial statements obtained from the Indonesia Stock Exchange (IDX). Sampling was conducted using purposive sampling, while data analysis utilized logistic regression with the assistance of SPSS version 26 software. The results indicate that financial targets have a positive effect on financial statement fraud, whereas financial stability has a negative effect on financial statement fraud. Meanwhile, external pressure, ineffective monitoring, change in auditor, change in director, and a frequent number of CEO pictures do not affect financial statement fraud. These findings underscore the importance of setting realistic financial targets, maintaining corporate financial stability, and upholding integrity, honesty, and transparency in corporate management to minimize the occurrence of financial statement fraud.

Keywords: Financial Target, Financial Stability, External Pressure, Ineffective Monitoring, CEO Pictures, Financial Statement Fraud.

JEL Codes: M31, M14, Q56

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^{1*}  Corresponding author; Accounting Department, Sekolah Tinggi Ilmu Ekonomi Indonesia Surabaya, leontinapajur@gmail.com

²  Accounting Department, Sekolah Tinggi Ilmu Ekonomi Indonesia Surabaya, fidiana@stiesia.ac.id

³  Accounting Department, Sekolah Tinggi Ilmu Ekonomi Indonesia Surabaya, david@stiesia.ac.id

1. INTRODUCTION

Financial statements are a key source of information. They present an entity's financial position, performance, and cash flows and are prepared in accordance with applicable accounting processes and standards (Milania & Triyono, 2022). The information must reflect the entire accounting process and meet the qualitative characteristics of financial information such as relevance, reliability, completeness, timeliness, understandability, verifiability, and accessibility (Setiawati & Baningrum, 2018). This aligns with the Conceptual Framework for Financial Reporting (KKPK), which groups these qualities into basic and additional characteristics. One basic characteristic is fair presentation. This means financial statements should be complete, free from major errors, and neutral (Rahayuningsih & Sukirman, 2021).

Financial statements are often designed to create a favorable impression for stakeholders, rather than to provide objective information. This practice can encourage financial statement fraud (Harto & Puji, 2016). Yesiariani & Rahayu (in Tuny & Limba, 2025) argue that financial statement information is crucial, as it shapes stakeholder perceptions and pressures managers to perform to maintain the company's reputation. Despite this, some managers still commit fraud and overlook the importance of honest, fraud-free reporting. Since management prepares and presents financial statements, it must ensure accuracy and reflect the company's true condition.

The Association of Certified Fraud Examiners (ACFE) categorizes fraud into three groups based on the nature of the offense: asset misappropriation, corruption, and financial statement fraud. The Association of Certified Fraud Examiners (ACFE) conducted a global survey on "Occupational Fraud and Abuse," which details fraud worldwide as outlined in the 2024 Report to the Nations (RTTN). The survey analyzed 1,921 cases from 138 countries over the period from January 2022 to September 2023 (ACFE, 2024:9). The results indicate that the global distribution of fraud cases includes asset misappropriation (89%), corruption (48%), and financial statement fraud (5%). When examining the losses caused by these three types of fraud, financial statement fraud ranks first with the highest average loss, reaching up to \$766,000 (ACFE, 2024). The 2019 Indonesia Fraud Survey (SFI) yielded similar results. Survey results indicate that corruption (64.4%), asset misappropriation (28.9%), and financial statement fraud (6.7%) are the most common types of fraud (ACFE, 2019). However, in terms of the magnitude of losses resulting from fraud, financial statement fraud ranks first, accounting for 67.4% of cases with losses under Rp.10,000,000 and 5.0% of cases with losses exceeding 10 billion (Oktaviani & Istiqomah, 2022).

Cases of financial statement fraud remain a serious problem with significant implications for the reliability of financial information, harming companies and misinforming investors, creditors, regulators, and other stakeholders in their economic decision-making. Therefore, a comprehensive understanding of the factors driving fraud is necessary, and this study employs the Fraud Pentagon Theory to explain these factors. The indicators in Crowe's fraud pentagon theory are not studied directly, so proxy variables are needed to measure them (Permatasari, 2021). The proxy variables used in this study are: pressure, proxied by financial targets, financial stability, and external pressure; opportunity, proxied by ineffective monitoring; rationalization, proxied by changes in audit; competence, proxied by changes in directors; and arrogance, proxied by the frequency of CEO pictures.

Numerous studies have examined factors influencing financial statement fraud. However, most research using Crowe's fraud pentagon theory has tested only select elements in isolation and has inadequately explained both the internal motivations of perpetrators and the structural or control-system weaknesses they exploit (Tamaela et al., 2025). This highlights a persistent gap between the theory's complexity and the empirical methods used; thus, a more comprehensive, data-driven analysis is needed (Restiana et al., 2023). Furthermore, current fraud measurement is mostly subjective, relying on perceptions or questionnaires, rather than objective detection tools such as the Beneish M-score. The Beneish M-score, calculated from eight financial ratios in the Beneish ratio index, classifies a company's financial statements as either fraudulent or not (Sitoremi et al., 2024).

This study aims to understand financial statement fraud using the fraud pentagon theory, which includes pressure, opportunity, rationalization, capability, and arrogance. These are represented by proxies such as financial targets, financial stability, external pressure, ineffective monitoring, changes in auditor, changes in director, and a frequent number of CEO pictures. Manufacturing companies were chosen as research subjects because they drive national economic acceleration and equitable distribution. Numerous manufacturing industries create intense competition. As rivalry grows, companies strive to improve performance and achieve objectives like high profits. This environment fosters opportunities to manipulate financial statements (Isna & Suhendi, 2020). Manufacturing companies also face liability risks, as their funding often comes from external sources. This increases the likelihood of financial statement fraud (Hastuti et al., 2023).

The preceding discussion reveals a clear gap between theory and practice in companies. Theoretically, management (the agent) is expected to act rationally, upholding integrity, honesty, and transparency to maintain stakeholder trust. Yet, in practice, fraudulent acts especially in financial reporting are common, illustrating weak adherence to these values. The urgency of this study is heightened by inconsistent empirical findings regarding the impact of the fraud pentagon theory on financial statement fraud. Variations in results arise from differences in proxy variables, measurement instruments, data analysis methods, subjects, and observation periods. Thus, further testing is needed to clarify the relationship between fraud pentagon factors and financial statement fraud. This study is necessary to address this research gap and to offer new evidence, potentially strengthening or clarifying the links among the studied variables in financial statement fraud.

2. LITERATUR REVIEW

2.1. Agency Theory

Agency Theory (Jensen & Meckling, 1976) explains the cooperative relationship between shareholders (principals) and management (agents). It also describes the contractual relationship between the owners of economic resources (principals) and the managers (agents) who oversee their use and control. Agency theory is a relevant framework for explaining how managerial behavior impacts financial statement outcomes. This relationship raises two key issues. First, information asymmetry: the principal has limited access to information compared to the agent, causing an information imbalance (Septiningrum & Mutmainah, 2022). Second, there is a conflict of interest. The principal seeks a high return on investment, while the agent aims for greater compensation, incentives, and bonuses for their work (Marsono, 2024).

2.2. Fraud Pentagon Theory

The fraud Pentagon theory, or Crowe's fraud pentagon, examines the factors that lead to fraud. It evolved from the Fraud Triangle (Cressy, 1953), which lists pressure, opportunity, and rationalization. Next came the Fraud Diamond (Wolfe and Hermanson, 2004), which adds capability. Later, Crowe Horwath (2011) proposed the fraud pentagon, adding arrogance as the fifth indicator. This framework identifies five fraud indicators: pressure, opportunity, rationalization, capability, and arrogance.

2.3. Financial Target

According to Skousen (2009), financial targets create pressure to achieve profits from the assets generating them. These targets are typically set in business plans and act as benchmarks for evaluating management performance. Achieving financial targets is crucial because they link to management incentives, investor confidence, and company sustainability (Setiawati & Baningrum, 2018). However, unforeseen and uncontrollable factors may prevent the company from meeting these targets, casting doubt on its viability. Pressure to meet targets and secure bonuses can make managers more ambitious, sometimes leading them to manipulate financial statements. Such pressure increases when targets are too ambitious or unrealistic, prompting management to take shortcuts (Tamaela et al., 2024). Oktaviani & Istiqomah (2022) support this, noting that high ROA in the previous year puts pressure on management to maintain profitability. Consequently, incentives for fraud rise. Financial targets are measured by ROA, which compares net income to total assets, and shows how well a company generates profits from its assets.

H1: Financial targets have a positive effect on financial statement fraud.

2.4. Financial Stability

According to Skousen (2009), financial stability reflects a company's strong financial health, as seen in its assets. Siddiq et al. (as cited in Setiawati & Baningrum, 2018) add that this stability is measured by growth in sales, annual profit, and assets. Management faces pressure to show effective asset use and deliver high returns to investors (Septianda et al., 2021). High financial stability reduces pressure to manipulate financial statements, as such companies are not in crisis, suffering losses, or under strong shareholder or creditor demands. Conversely, low financial stability increases the risk of financial statement fraud due to the pressure to appear strong to stakeholders. Financial stability is indicated by changes in total assets: the lower the change, the greater the pressure and risk of fraud; the higher the change, the lower the risk (Rahayuningsih & Sukirman, 2021).

H2: Financial stability has a negative effect on financial statement fraud

2.5. External Pressure

According to Skousen (2009), external pressure refers to excessive pressure from management to meet third-party expectations and often drives management to seek external financing. This pressure is measured by the leverage ratio, which is the ratio of total liabilities to total assets, assessing the extent to which assets are financed by debt and the company's ability to meet its financial obligations. Kasmir (2013) notes that a high leverage ratio indicates significant debt and high credit risk, which creates pressure on management as creditors may worry about the company's ability to repay loans. To address these concerns, management may seek to improve profits or manipulate financial statements to assure creditors (Oktaviani &

Istiqomah, 2022). Similarly, Person (as cited in Marsono, 2024) observed that a high debt-to-equity ratio is associated with a greater likelihood of violating debt covenants. Based on the above discussion, the hypothesis is that external pressure positively affects financial statement fraud.

H3: External pressure has a positive effect on financial statement fraud

2.6. Ineffective Monitoring

Ineffective monitoring within a company increases the likelihood of fraud (Puryati et al., 2024). Statement on Auditing Standards No. 99, states that ineffective monitoring happens when one person or a small group controls management, checks and balances are missing, or the board and committees fail to oversee financial reporting and controls. Independent commissioners enhance monitoring and lower fraud risk. BDOUT measures ineffective monitoring by comparing independent board members to the total number of board members. Law No. 40 of 2007 requires publicly listed firms in Indonesia to have at least one-third of their board as independent, or more if required by regulation. Independent commissioners oversee internal controls (Sitoresmi et al., 2024). Siddiq et al. (as cited in Setiawati & Baningrum, 2018) also note that more independent board members are associated with less fraud. Strong internal oversight controls fraud risk, but its absence increases it.

H4: Ineffective monitoring has a negative effect on financial statement fraud

2.7. Change in Auditor

A change in auditors is a common practice in corporate governance, driven by regulations, cost efficiency, or other strategic considerations (Selviana & Wenny, 2021). However, if such changes occur unreasonably or too frequently, they can create a negative perception of the integrity of the company's financial statements. Moreover, strategic changes are often associated with management concealing indications of fraud (Tamaela et al., 2025). According to Skousen (as cited in Rahmantika, 2020), audit failures and litigation increase rapidly after auditor changes. Companies often change auditors to avoid detection of fraud identified by the previous auditor or to eliminate the fraud trail (Tessa & Harto, 2016). Ozcelik (2020) supports this by noting that an auditor's long tenure affects independence (Putra & Suprasto, 2021). A change in auditor is represented by a dummy variable: 1 if the company changed auditors during the 2020–2023 study period, 0 otherwise.

H5: A change in auditor has a positive effect on financial statement fraud

2.8. Change in Director

According to Statement on Auditing Standards (SAS) No. 99, leadership changes can create vulnerabilities in financial statement integrity. During transitional periods, individuals with authority, such as new board members, may exploit this instability, especially while internal controls are being adjusted. This weakened environment offers opportunities for manipulative practices. New directors often lack detailed knowledge of the organization and have limited control over financial reporting, increasing the risk of fraud. Capability is vital since those in power are positioned to abuse their authority (Tamaela et al., 2025). Sihombing & Rahardjo (in Marsono, 2024) emphasize that director changes often involve political interests and potential conflicts of interest. Tessa & Harto (2016) state such changes typically reflect political motives to replace prior directors. According to Setiawati & Baningrum (2018), these transitions can reduce performance effectiveness because adapting to a new board culture takes

time. A change in directors for this analysis is represented by a dummy variable: 1 if there was a leadership change from 2020 to 2023, and 0 if there was not.

H6: A change in directors has a positive effect on financial statement fraud.

2.9.Frequent Number Of CEO Picture

Arrogance can be measured by the number of Chief Executive Officer (CEO) photos featured in a company's annual report or financial statements, reflecting excessive self-confidence and a belief in being above rules and oversight. CEOs often display their status to avoid feeling unrecognized. As noted by Fatmaningrum & Anggrani (2021), frequent CEO photos in financial reports can signal arrogance (Oktaviani & Istiqomah, 2022). Siddiq et al. (in Setiawati & Baningrum, 2018) state that no internal control system can restrict a CEO's behavior, given their power. Marks (2012) similarly observes that CEOs may take any means to maintain their position and status. Therefore, the hypothesis is that a higher frequency of CEO photos is positively associated with financial statement fraud. In the 2020–2023 study period, more CEO photos in annual reports indicate higher arrogance, potentially leading to fraud, as such CEOs may feel exempt from internal regulations due to their status.

H7: A high frequent number of CEO pictures has a positive effect on reporting fraud.

3. METHOD

This is a quantitative study that uses a causal-comparative approach to examine links between financial targets, financial stability, external pressure, ineffective monitoring, changes in auditor, changes in director, and the frequency number of CEO picture and financial statement fraud. The study uses secondary data from annual financial reports and company summaries of companies listed on the Indonesia Stock Exchange (IDX).

The population in this study consists of 65 manufacturing companies listed on the Indonesia Stock Exchange from 2020 to 2023. Using purposive sampling, 26 companies were selected based on specific criteria. Over the four-year period, a total of 104 company-year observations were obtained.

The proxies used for each independent variable are as follows: the proxy for financial target is return on assets (ROA), which compares total net income to total assets; the proxy for financial stability is asset growth, which compares current total assets to total assets from the previous year; and the proxy for external pressure is the leverage ratio, which measures the ratio of total liabilities to total assets. The proxy for ineffective monitoring is the Board of Directors Outside (BDOUT) ratio, which measures the proportion of independent commissioners to the total number of board members. The proxies for change in auditor and change in director use dummy variables. Meanwhile, the dependent variable proxy for financial statement fraud uses the Beneish ratio index with eight financial ratios: Days Sales Receivable Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), Sales Growth Index (SGI), Leverage Index (LVGI), Depreciation Index (DEPI), Sales General and Administrative Expenses Index (SGAI), and Total Accruals to Total Assets Index (TATA). The results of the Beneish Ratio Index calculation will be categorized as follows: if the Beneish M-Score > -2.22 , it indicates that the financial statements have been manipulated. Meanwhile, if the Beneish M-Score is < -2.22 , it indicates that the financial statements have not been manipulated. The collected data is then analyzed using logistic regression in SPSS version 26.

4. RESULTS AND DISCUSSION

4.1.Descriptive Statistics

This study uses two types of descriptive statistical analysis: one for financial ratio data and one for nominal data. For financial ratios, descriptive statistics describe the minimum, maximum, mean, and standard deviation of numerical variables. For nominal data, descriptive statistics report the frequencies and percentages for categorical or dummy variables.

Table 1. Results of Ratio-Scale Statistical Tests

	N	Minimum	Maximum	Mean	Std Deviation
ROA	104	0,000	1,237	0,08820	0,144478
ACHANGE	104	-0,468	1,676	0,07229	0,202498
LEV	104	0,081	4,221	0,44647	0,433365
BDOUT	104	0,000	1,000	0,38027	0,241606

Table 2. Descriptive Statistics for Nominal-Scale Data

	N	The one who does it	the one who does not	Percentage
AUDCHANGE	104	19 (18,3%)	85 (81,7%)	100%
DCHANGE	104	26 (25,0%)	78 (75,0%)	100%
FRAUD	104	36 (34,6%)	68 (65,4%)	100%

Based on Tables 1 and 2, which present the results of statistical tests for ratio and nominal variables, the financial target variable ranges from 0.000 to 1.237. Additionally, this variable has a mean of 0.08820 with a standard deviation of 0.144478. The standard deviation, which is larger than the mean, indicates a high degree of data variation, suggesting that financial target data tends to be diverse.

The financial stability variable ranges from -0.468 to 1.676. Additionally, this variable has a mean of 0.07229 and a standard deviation of 0.202498. The fact that the standard deviation is larger than the mean indicates a relatively high degree of data variation, suggesting that financial stability data is quite diverse.

The external pressure variable ranges from 0.081 to 4.221, with a mean of 0.44647 and a standard deviation of 0.433365. The fact that the standard deviation is close to the mean indicates that the data distribution is relatively even.

The variable for ineffective monitoring, proxied by BDOUT, ranges from 0.000 to 1.000, with a mean of 0.38027 and a standard deviation of 0.241606. This indicates variation in the level of monitoring effectiveness among the sample companies.

The “Change in Auditor” variable indicates that, out of 104 samples, 19 companies (18.3%) changed auditors during the study period from 2020 to 2023, while 85 companies (81.7%) did not.

The “Change in Directors” variable shows that 26 companies (25%) underwent a change in directors during 2020 to 2023, while 78 (75%) did not.

Table 3: Results of Descriptive Statistical Tests

The frequency of the number of CEO pictures	Amount (n)	Percentage (%)
Do not display photos	38	36,5%
Display 2 photos	1	1%
Display 3 photos	15	14,4%
Display 4 photos	13	12,5%
Display 5 photos	25	24%
Display 6 photos	9	8,7%
Display 7 photos	2	1,9%
Display 9 photos	1	1%
Total	104	100%

Table 3 shows that 36.5% of 104 companies did not include a CEO photo in their annual financial reports. The other 63.5% included between 2 and 9 CEO photos. The most common frequency is 5 photos, at 24%, while only 1% of companies used just 1 photo. Most companies display CEO photos in their annual reports, though the number of photos varies.

4.2. Multicollinearity

Table 4: Results of The Multicollinearity Test

Model	Collinearity statistic		
	Tolerance	Tolerance	VIF
1	ROA	0,905	1,105
	ACHANGE	0,848	1,179
	LEV	0,979	1,021
	BDOUT	0,920	1,088
	AUDCHANGE	0,980	1,020
	DCHANGE	0,963	1,038
	CEOCIP	0,977	1,024

Based on Table 4, the multicollinearity test shows financial target, financial stability, external pressure, ineffective monitoring, change in auditor, change in director, and the frequency of CEO pictures, respectively, have tolerance values between 0.848 and 0.980, and VIF values between 1.020 and 1.179. Since all tolerance values are >0.10 and all VIF values are <10 , the regression model in this study meets the assumptions and does not exhibit multicollinearity.

4.3. Overall Model Fit

Based on Table 5, the overall model fit test shows that the initial -2 Log likelihood value before including the independent variables was 134.167. After adding 7 independent variables, the final log-likelihood decreased to 120.804, a reduction of 13.363. This decrease indicates improved model fit.

Table 5: Overall Model Fit

Iteration	-2 Log likelihood
-2 Log likelihood initial (block number = 0)	134,167
-2 Log likelihood final (block number = 1)	120,804

4.4. Goodness Of Fit Test

Table 6. Results of the Goodness-of-Fit Test

Step	Chi- square	Df	Sig
1	3,282	8	0,915

Based on Table 6, the results of the goodness-of-fit test indicate that the probability value of 0.915 is greater than 0.05 (the significance level), so H_0 is accepted. This means that there is no significant difference between the model and the data, so the regression model in this study is valid and capable of predicting the observed values.

4.5. Nagelkerke R Square

Table 7. Nagelkerke R-Square Test Results

Step	-2 Log likelihood	Cox & Snell R-squared	Nagelkerke R-squared
1	120,804	0,121	0,166

Based on Table 7, the Nagelkerke R-squared test shows Cox & Snell R-squared at 0.121 and Nagelkerke R-squared at 0.166. Specifically, this means the independent variables, financial targets, financial stability, external pressure, ineffective monitoring, change in auditor, change in director, and frequency of CEO changes jointly explain 16.6% of the variance in financial statement fraud. The remaining 83.3% of the variance is attributable to other undisclosed factors not included in the research model.

4.6. Classification Matrix Test

Table 8. Classification Matrix

			Do not commit fraud	Committing fraud	Percentage Correct
Step 1	Observed FFR	Do not commit fraud	61	7	89,7 %
		Committing fraud	25	11	30,6%
Overall Percentage			69,2%		

Based on Table 8, the classification matrix from the logistic regression analysis indicates that the model achieves 69.2% accuracy in predicting financial statement fraud. Specifically, the model correctly identifies 89.7% of non-fraud cases and 30.6% of fraud cases.

Based on the logistic regression analysis in Table 9, financial targets have a statistically significant positive effect on financial statement fraud (coefficient = 0.218, significance = 0.035). Financial stability has a statistically significant negative effect (coefficient = 1.057,

significance = 0.013). Conversely, external pressure, ineffective oversight, auditor and director turnover, and the frequency of CEO pictures are not statistically significant (p-value > 0.05), indicating no significant impact on financial statement fraud.

Table 9: Logistic Regression

	B	S.E.	Wald	Df	Sig	Exp (B)	Concl
ROA	0,218	0,104	4,426	1	0,035	1,244	Accepted
ACHANGE	-1,507	0,606	6,188	1	0,013	0,222	Accepted
LAVERAGE	0,179	1,060	0,029	1	0,866	1,196	Rejected
BDOUT	-0,892	0,945	0,892	1	0,345	0,410	Rejected
AUDCHANGE	0,330	0,569	0,336	1	0,562	1,391	Rejected
DCHANGE	-0,567	0,538	1,110	1	0,292	0,567	Rejected
CEOCIP	0,144	0,094	2,329	1	0,127	1,154	Rejected
Constant	-0,275	0,656	0,176	1	0,675	0,759	

The findings indicate that financial targets have a significant positive influence on financial statement fraud by placing pressure on management. This supports Tamaelan et al. (2024), who note that pressure arises when targets are seen as overly ambitious. Consequently, management may seek shortcuts through financial statement manipulation. Setiawati & Baningrum (2018) similarly argue that achieving targets is critical for management incentives, investor confidence, and corporate sustainability. However, unforeseen factors often undermine target achievement, casting doubt on company viability. The pressure to meet targets and secure bonuses drives overly ambitious behavior and manipulation. These results support Jansen & Meckling's (1976) agency theory of principal-agent conflict, in which a lack of mutual trust leads management to pursue its own interests rather than those of the owners. Specifically, owners demand that management achieve targets to increase value, while managers face pressure because their compensation and evaluations depend on meeting those targets.

Further findings indicate that financial stability has a significant negative effect on financial statement fraud. Specifically, high financial stability means the company is financially sound, not experiencing material financial distress, and not under compulsion to enhance financial performance artificially. As a result, such companies face less incentive to manipulate financial statements because they are not in a state of crisis, incurring substantial losses, or under urgent demands from shareholders or creditors. Thus, the company's stable financial condition indicates a low probability of financial statement fraud, supported by a robust early-warning system. This condition also demonstrates management's ability to efficiently allocate and control assets, with asset growth reflecting genuine economic expansion rather than artificial inflation. Conversely, companies with low financial stability face a greater risk of financial statement fraud due to pressure to portray favorable performance to investors, creditors, and the public, which can motivate the manipulation of financial statements (Renzy et al., 2021). This association reinforces Skousen's (2009) findings that financial stability reflects a company's solvency, as evidenced by its asset quality. Additionally, it aligns with Rahmono et al. (in Setiawati & Baningrum, 2018), who argue that financial instability increases pressure on management due to inefficient asset utilization and ineffective investment management.

5. CONCLUSION

His study confirms that financial targets have a positive effect on financial statement fraud, while financial stability has a negative effect on financial statement fraud. Meanwhile, external pressure, ineffective monitoring, changes in auditors, changes in directors, and a frequent number of CEO pictures do not affect financial statement fraud.

This research has practical implications for several parties. Company management should set realistic financial targets to avoid pressure that may lead to fraud. Companies must also maintain transparent financial stability to prevent financial statement manipulation.

For investors and creditors, this study helps assess financial statement fraud risk, especially by using financial targets and company stability.

For regulators and auditors, these findings help enhance oversight, especially for companies with high financial targets and unstable finances, as they are more prone to financial statement fraud.

This study has several limitations. These findings may not apply to other companies, as the research focuses on manufacturing firms listed on the Indonesia Stock Exchange (IDX) from 2020 to 2023. This analysis examines only the causal factors of fraud as outlined by the fraud pentagon theory, thereby excluding other potential influences on financial statement fraud. Future research should include additional variables to understand better how management and owner behavior within the fraud pentagon framework affects financial statement fraud.

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