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THE EFFECT OF PENTAGON FRAUD ON POTENTIAL FRAUD IN FINANCIAL STATEMENTS IN STATE-OWNED ENTERPRISES LISTED ON THE STOCK EXCHANGE IN INDONESIA

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ABSTRACT

This study aims to analyze the factors that can detect the existence of fraud in financial statements. The focus of this research is to evaluate the impact of the pentagon fraud variables, namely pressure, opportunity, rationalization, competence, and arrogance, on financial statement fraud. The research object in this study was state-owned companies listed on the Indonesia Stock Exchange for the period of 2022 to 2024. The total sample in this study consisted of 19 companies, selected using purposive sampling technique. Pressure was proxied by financial stability, financial targets, and external pressures, while competence was proxied by ineffective supervision. Rationalization was proxied by changes in auditors and audit opinions, competence was also proxied by changes in the board of directors, and arrogance was proxied by the frequency of CEO changes.
The results of this study show that financial targets and changes in auditors have an impact on financial statement fraud, while financial stability, external pressures, ineffective supervision, audit opinions, changes in directors, and frequency of CEO changes have no effect on financial statement fraud.

Keywords : ***Pentagon Fraud, Pressure, Rationalization, Competence, Financial Statement Fraud***

INTRODUCTION

The use of financial statements is vital in economic decision-making for management, investors, creditors, and other stakeholders. However, financial statement fraud remains prevalent, leading to significant financial losses and eroding public trust. Fraud is generally defined as a deliberate misrepresentation to gain an advantage at the expense of another party, although not all lies result in harm (Oyedokun, 2016; Sayidah et al., 2019).

The 2024 global fraud report by the Association of Certified Fraud Examiners (ACFE) highlights that organizations lose an average of 5% of their annual revenue to fraud, approximately USD 3.1 billion. Asset misappropriation is the most common type of fraud, representing 89% of cases with an average loss of USD 120,000, followed by corruption (48% of cases). Although financial statement fraud accounts for only 5% of cases, it results in the highest average loss of USD 766,000. Fraud is often discovered after an average delay of 12 months, with 43% of cases revealed by whistleblowers, underlining its severe impact on organizational stability.

In Indonesia, State-Owned Enterprises (SOEs) play a key role in job creation, economic growth, and providing dividends to the state. As of 2023, SOEs have total assets amounting to IDR 10,470 trillion (Ministry of SOEs, 2023). Despite regulations emphasizing sound management practices (Law No. 19/2003), recent fraud cases within SOEs, such as PT Pertamina's manipulation of LNG

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procurement reports and PT Waskita Karya's financial statement manipulation, reveal persistent governance weaknesses.

This study utilizes the Fraud Pentagon framework (Crowe, 2011; Nizarudin et al., 2023), which includes five components: pressure, opportunity, rationalization, competence, and arrogance. Unlike the Fraud Triangle or Fraud Diamond, the Fraud Pentagon model offers a more comprehensive approach, especially for large and complex entities like SOEs. The study examines how each component—represented by factors like financial stability, external pressures, auditor turnover, and CEO visibility—affects the likelihood of fraud.

Previous studies on the relationship between the Fraud Pentagon and financial statement fraud have yielded inconsistent results. For example, some found significant impacts of auditor turnover and industry nature (Yanti & Munari, 2021), while others highlighted the role of financial stability and ineffective monitoring (Hermawati & Nugroho, 2024). These discrepancies highlight a research gap, particularly in SOEs listed on the IDX.

The purpose of this study is to investigate the impact of the Fraud Pentagon on the likelihood of financial statement fraud in Indonesian SOEs listed on the IDX. The findings are expected to provide valuable insights for strengthening internal controls, improving audit quality, and promoting transparency in financial reporting, contributing to the stability of the capital market.

LITERATURE REVIEW

Financial Statement

According to PSAK 1, which is based on the Indonesian Accounting Association, financial statements are a way to show information about an organization's performance and financial status. Furthermore, according to Government Regulation Number 24 of 2005, a budget summary is a structured report that shows the organization's financial circumstances and transactions. The budget summary is created to satisfy the demands of the organization's internal and external stakeholders. It seeks to demonstrate accountability for the management of organizational assets and provide pertinent financial data to those who are directly involved with the organization.

Fraud

Fraud is simply described as the movement of all kinds of activities to receive services with the aim of not paying. Fraud can also be characterized as how much money is lost in a note that should have been paid. However, for identification purposes, this definition is less helpful, given the fact that fraud can only be detected after it has occurred (Catano and Turk, 2007). Fraud is an intentional and dishonest act aimed at deceiving others for personal gain, including unlawfully obtaining assets or causing financial losses. It involves deception or abuse of trust without the use of violence. Due to its negative impact on individuals, organizations, and society, fraud prevention and detection require strong oversight, good governance, and the use of advanced information technology (Asaro et al., 2023)

Perpetrator of Fraud

Fraudsters generally have certain characteristics. Trustworthiness is one of the qualities that has the most impact on the occurrence of fraud. There are 4 speculations related to human honesty. Certain people are always honest, some are not. There are individuals who are sometimes honest, in some cases not. Moreover, cheating is influenced by several elements, especially personal, organizational and external Singleton & Singleton (2010)

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Fraud Triangle Theory

The three primary factors pressure, opportunity, and rationalization that motivate people to commit fraud are explained by Donald Cressey's (1953) Fraud Triangle Theory. Pressure arises from financial need or high performance targets, opportunities arise from weaknesses in internal controls, while rationalization is an individual's justification for his actions. This theory became the basis for other fraud models, including the Pentagon Fraud, and emphasized the importance of internal oversight and pressure management to prevent fraud in Sayidah, et.al (2019).

Fraud Pentagon Theory

The Fraud Pentagon theory is an evolution of the Fraud Triangle and Fraud Diamond, developed by Crowe Howarth in (2018). In addition to the components of Pressure, Opportunity, Rationalization (Fraud Triangle), and Capability (Fraud Diamond), it introduces a fifth element: Arrogance. Arrogance refers to an individual's belief that they are above the law and ethical standards, which leads to a higher likelihood of fraudulent

Crowe's Fraud Pentagon Theory

RESEARCH HYPOTHESIS

Financial Stability against fraud in financial statements

According to Skousen et al. (2008), financial stability that is disrupted by financial, industrial, and work substance can lead to fraudulent activities through financial statement manipulation (SAS No. 99). According to Tessa and Harto (2016), the abundance of organizational assets is appealing to creditors and investors, but it's frequently used to falsify reports to give the appearance of financial stability. The expansion of assets is one type of manipulation (Skousen, Smith, & Wright, 2009). Financial stability has an impact on financial statement fraud, according to research by Iqbal and Murtanto (2016); The likelihood of fraud increases with the asset change rate. Thus, the study's hypothesis is:

H1: Financial Stability has a significant effect on the occurrence of fraud in financial statements

Financial Target against fraud in financial statements

Executives often feel pressured to meet set financial targets, such as profits reflected in ROAs. This pressure can trigger fraudulent actions to meet financial targets and reap rewards. Yossi and Desi (2018) found that high financial targets encourage manipulation of financial statements, However, an improvement in the business's operations and performance may also contribute to the rise in ROA Septriani and Handayani, (2018). So the hypothesis is:

H_2 : Financial Target has a significant effect on the occurrence of fraud in financial statements

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External Pressure on Fraud in Financial Statements

The leverage ratio is a measurement of external pressure, affect the fraud of financial statements. Organizations with high leverage ratios are considered high-risk, which encourages the manipulation of reports to give the impression of being able to repay loans Santoso & Surenggono, (2018). Financial report fraud and external pressure are positively correlated, according to research by Tiffani and Marfuah (2015). Thus, the study's hypothesis is:

H_3 : External Pressure has a significant effect on the occurrence of fraud in financial statements

Ineffective Monitoring of fraud in financial statements

Report tampering is made possible by inadequate monitoring. Fraud can be avoided and oversight enhanced by an impartial board of commissioners (Beasley, 1999; Tessa & Harto, 2016). Yossi and Desi (2018) demonstrate that inadequate oversight leads to increased fraud rates. According to the preceding reasoning, The following theories are put forth by this study:

H4: The incidence of financial statement fraud is significantly affected by ineffective monitoring

Change in Auditor against fraud in financial statements

Changes in auditors are frequently brought about by unhappiness with the previous auditor's performance, which may be an attempt to conceal the wrongdoing discovered by Tessa & Harto (2016). According to Loebbecke et al. (1989), auditor turnover might raise the likelihood of audit failure along with litigation. But businesses can switch auditors in order to obtain outcomes that more closely match their expectations (Faidah & Suwarti, 2018). In light of the description given above, the study's hypothesis is:

H5: The incidence of financial statement fraud is significantly impacted by changes in the auditor

Audit Opinion on fraud in financial statements

Rationalization, shown in the audit opinion, can justify an act of managerial fraud, especially if the audit opinion does not provide a reprimand Annisya et al., (2016). Ulfah, Nuraina, and Wijaya (2017) stated that auditors' opinions have an effect on fraud, although Astri (2019) It is argued that the justification for fraud is not always influenced by audit opinions. Therefore, the hypothesis is:

H6: Financial statement fraud is significantly influenced by audit opinions.

Change of Director against fraud in financial statements

The replacement of directors, intended to enhance company performance, may increase the likelihood of fraud, particularly if the new directors possess greater capability in exploiting such opportunities (Husmawati et al., 2017). However, Astri (2019) suggests that director changes do not impact fraud, as the primary objective is to improve performance. Based on these differing viewpoints, the hypotheses proposed in this study are:

H7: The change of directors significantly affects the occurrence of fraud in financial statements. \

Frequent Number of CEO's Picture of Fraud in Financial Statements

The presence of numerous CEO photos in the annual report can reflect the CEO's level of arrogance, potentially contributing to fraudulent behavior. Bawakes, Simanjuntak, and Daat (2018) found that CEO photos are positively correlated with fraudulent financial statements, though in some companies, these photos are merely a formal requirement without indicating any arrogance (Mustofa et al., 2018). Therefore, the hypothesis proposed in this study is:

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H8: The frequency of CEO photos significantly influences the occurrence of fraud in financial

RESEARCH METHODS

Population and Sample

This study utilizes a population of 29 state-owned enterprises listed on the Indonesia Stock Exchange (IDX) for the period 2022–2024. The sample comprises 19 state-owned enterprises selected through purposive sampling, with the research period spanning from 2022 to 2024. The selection was based on the following criteria

1. State-owned companies listed in 2022-2024 on the Indonesia Stock Exchange.
2. State-owned companies that publish annual reports in the research year.
3. The Company presents financial statements using rupiah (Rp).
4. Data related to research variables are available completely

Dependent Variable

The dependent variable in this study is fraudulent financial statements. Errors in financial statement reporting can be evaluated using the Fraud Score Model (F-Score), which serves as a tool to assess the risk level in the financial statements by combining accrual quality with financial performance (Dechow et al., 2007). The formula is as follows:

F-Score = Accrual Quality + Financial Performance

1.Accrual Quality

Accrual quality is proxied with RSST with the following model:

$$\text{RSST Accrual} = \frac{(\Delta WC + \Delta NCO + \Delta FIN)}{Average\ Total\ Assets}$$

Description:

WC *(Working Capital)* = *(Cureent assets - Current Liability)*

NCO *(Non Current Operating Accrual)* = *(Total assets - current assets - investment and advances) - (Total liabilities - current liabilities - long term debt)*

END *(Financial Accrual)* = *(Total Investment - Total Liabilities)*

ATS *(Average Total Assets)* = $\frac{(Beginning\ total\ assets + End\ total\ assets)}{2}$

2. Financial Performance .

The model of *financial performance* is as follows:

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Financial Performance = change in receivable + change in inventories + Change in cash sales + change in earnings

Description :

Change in cash sales= - $\frac{\Delta Sales}{Sales\ (t)} \frac{\Delta receivables}{\Delta receivables(t)}$

Change in receivable = $\frac{\Delta receivable}{Average\ Total\ Assets}$

Change in earnings = $\frac{Earning\ (t)}{Average\ Total\ Assets} - \frac{Earnings\ (t-1)}{Average\ Total\ Assets\ (t-1)}$

Change in inventories = $\frac{\Delta inventories}{Average\ Total\ Assets}$

Independent Variable

Independent variables consist of five components in *the fraud pentagon*, including *pressure*, opportunity, *rationalization*, competence and *arrogance*. The following is the operational definition and measurement method of each variable:

1. Pressure
   Pressure that leads to fraud may arise from internal or external sources and can be financial or non-financial. Financial pressure relates to monetary needs or lifestyle demands, while non-financial pressure stems from performance expectations imposed on management. These pressures elevate the likelihood of financial statement fraud (Narayani & Sayidah, 2023). as calculated by the following formula:

Financial Stability (ACHANGE) = $\frac{Total\ asset\ t - Total\ asset\ t-1}{Total\ asset\ t-1}$

Financial Target (ROA) = $\frac{Net\ profit}{Total\ asset}$

External Pressure = $\frac{Total\ Liability}{Total\ Asset}$

Description :

ACHANGE = Change in Total Assets

ROA = Return on Assets

LEV = Leverage Ratio

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2. Opportunity/opportunity
   It is represented by the ineffectiveness of oversight, measured by the ratio of independent commissioners (BDOUT), which is formulated as follows:

$$\text{BDOUT} = \frac{Total\ of\ Independent\ of\ Board\ Commissioners}{Total\ of\ Board\ Commissioners}$$

3. *Rationalization*
   Proxy-based with audit opinions and audit changes using dummy variables, by adjusting the sample in this study, the following assumptions are used:
   - Organizations that received a fair opinion assessment without exception with explanatory paragraphs during the research period, were given a code of 1 (one), while
   - Organizations that receive an assessment other than a reasonable opinion without exception with an explanatory paragraph are given a code of 0 (zero) (Skousen, et al., 2008).

   Audit turnover is also estimated using *dummy variables,* assuming the following:

   - If the organization changes auditors, they are given a code of 1 (one), while
   - If there is no replacement of the auditor, it is given a code of 0 (zero) (Skousen, et al., 2008).
4. Competence

   It is represented by the change in the board of directors using dummy variables, as follows:

   - A code of 1 is assigned if there is a change in directors, and
   - A code of 0 is assigned if there is no change in directors (Sihombing, 2014).
5. Arrogance
   It is proxied by the number of CEO photos featured in the organization's annual report. An increased number of CEO photos in the financial statement may indicate a high level of CEO arrogance, as the CEO may be using the photos to assert their presence and influence within the organization (Bawekes et al., 2018).

RESULTS OF RESEARCH AND DISCUSSION

The subject of this study consists of state-owned companies listed on the Indonesia Stock Exchange for the period 2022–2024. The total sample for this study is 19 companies over 3 years, resulting in 57 samples. The company data is utilized for analysis. The following Table 1 presents the descriptive statistics of the data used in this study.

Descriptive statistics

Table 1 below shows the descriptive statistics of the data used in this study. The descriptive statistics depicted in Table 1 show the data structure of variable financial stability (ACHANGE), financial target (ROA), external pressure (LEV), ineffective monitoring (BDOUT), arrogance (FCEO).

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Table 1 Descriptive Statistics of Research Data

Models	N	Minimum	Maximum	Mean	Std. Deviation
ACHANGE	57	-.505	.419	-.01283	.139163
ROA	57	-.949	.599	.00585	.181326
LEV	57	.273	2.851	.68809	.419033
BDOUT	57	.286	.750	.53098	.122571
FCEO	57	1	6	3.11	1.030
F-SCORE	57	-1.771	1.730	.03115	.616865
Valid N (listwise)	57				

Source : SPSS 27 Output

Based on the results of descriptive statistics, this study used 57 observations. The F-Score variable as an indicator of potential fraud in financial statements has an average value of 0.031 with a minimum value of −1.771 and a maximum of 1.730. The average value of close to zero indicates that in general the sample companies are not strongly indicated to have committed financial statement fraud, although there are some companies with relatively high fraud potential.

The ACHANGE variable has an average value of −0.013, which indicates that the company's asset growth tends to be stagnant. The ROA variable as a proxy for financial targets has an average value of 0.006, which indicates a relatively low level of profitability of the company. This condition can theoretically create pressure for management in achieving financial performance targets.

The LEV variable has an average value of 0.688, which indicates external pressures due to the use of debt-based funding. The BDOUT variable has an average value of 0.531, which reflects that the proportion of independent commissioners in the sample companies has met the regulatory requirements, although the effectiveness of supervision is not necessarily optimal. Meanwhile, the FCEO variable has an average value of 3.41, which shows that the level of arrogance of the company's leaders is in the moderate category.

Table 2

Dummy Variable Frequency Distribution

Variable	Value	Frequency	Percentage (%)
AUDCHANGE	0	39	68.4
	1	18	31.6
AO	0	2	3.5
	1	55	96.5
DCHANGE	0	16	28.1
	1	41	71.9

Source : SPSS 27 Output

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Based on Table 2, the AUDCHANGE variable shows that as many as 18 observations (31.6%) of companies made auditor changes (value of 1), while 39 observations (68.4%) did not change auditors (value 0). These findings indicate that most of the sample companies tended to retain the same auditors during the study period.

The AO variable (audit opinion) showed that 55 observations (96.5%) of the company obtained a reasonable opinion without exception with an explanatory paragraph (value 1), while 2 observations (3.5%) obtained an opinion other than reasonable without exception with an explanatory paragraph (value 0). This demonstrates that independent auditors believe the majority of sample companies have adequate financial statements.

Meanwhile, the DCHANGE variable showed that 16 observations (28.1%) of companies experienced a change of directors (value of 1), whereas 41 instances (71.9%) had no director change (value 0).This condition indicates that management stability is relatively maintained in most of the sample companies.

Classical Assumption Test Results

Before conducting hypothesis tests, researchers test classical assumptions from the research data.

Data Normality Testing

The Kolmogorov-Smirnov Test is one technique for determining whether data is normal. The data normality test using Kolmogorov Smirnov significance yields a 200% significance score, and Table 3 demonstrates that the data distribution is normal. Since this value exceeds the crucial limit of 5%, It is possible to conclude that the distribution of the data is normal.

Table 3

One-Sample Kolmogorov-Smirnov Test

				Unstandardized Residual
N				57
Normal Parameters[a,b]		Red		.0000000
		Std. Deviation		.51829804
Most Extreme Differences		Absolute		.089
		Positive		.075
		Negative		-.089
Test Statistic				.089
Asymp. Sig. (2-tailed)[c]				.200d
Monte Carlo Sig. (2-tailed)[e]		Sig.		.309
		99% Confidence Interval	Lower Bound	.297
			Upper Bound	.321

Source: SPSS 27 Output

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Table 4

Multicollinearity Testing with Tolerance and VIF values

Models		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.539	.648		-.831	.410		
	ACHANGE	-.257	.662	-.058	-.387	.700	.658	1.519
	ROA	1.286	.572	.378	2.248	.029	.520	1.922
	LEV	-.024	.248	-.017	-.098	.923	.516	1.937
	BDOUT	.591	.669	.117	.883	.381	.832	1.202
	AUDCHANGE	-.474	.165	-.360	-2.873	.006	.936	1.069
	AO	.579	.438	.174	1.322	.192	.848	1.179
	DCAHNGE	.031	.174	.022	.176	.861	.901	1.110
	FCEO	-.054	.080	-.091	-.682	.499	.828	1.207

a. Dependent Variable: F-SCORE

Source : Output SPSS 27

Multicollinearity Testin

The Multicollinearity test is used to determine whether there is a high correlation between independent variables in a multiple linear regression model. A high correlation among independent variables can distort the relationship between each independent variable and the dependent variable. Common statistical tests for identifying multicollinearity include examining tolerance values and the variance inflation factor (VIF), as well as the Pearson correlation between independent variables. Multicollinearity is considered present if the correlation between independent variables results in a tolerance value ≤ 0.10 or a VIF ≥ 10. The results of the multicollinearity test, based on the Pearson correlation of the independent variables, are shown in Table 4. The Tolerance values for all independent variables are greater than or equal to 0.10, and the VIF values for all independent variables are less than or equal to 10, indicating no multicollinearity among the independent variables.

Autocorrelation Testing

The autocorrelation test is used to determine if there is a correlation between the current period (t) and the previous period (t-1). In simple terms, regression analysis aims to examine the relationship between independent variables and the dependent variable, so there should be no correlation between current observations and previous data. One commonly used autocorrelation test is the Durbin-Watson (d) model. The results of the Durbin-Watson test, conducted at a 95% confidence level (5% significance level) using the research data, are as follows:

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Table 5

Model Durbin-Watson

2.593
a. Predictors: (Constant), FCEO, AUDCHANGE, BDOUT, DCAHNGE, ROA, AO, ACHANGE, LEV
b. Dependent Variable: F-SCORE

Source: SPSS 27 Output

Based on the results of the Durbin–Watson test, a score of 2.593 was obtained. With a sample count of 57 and a number of independent variables of 8, the Durbin–Watson value is between 4 − dU and 4 − dL so it is in the gray area for negative autocorrelation. Thus, it cannot be concluded with certainty that there is an autocorrelation in the regression model.

Heterokedasticite Testing

The heteroscedasticity test checks for uneven variance in residuals across observations. A regression model is considered good if it exhibits homoscedasticity, meaning the variance of residuals is consistent. Heteroscedasticity can be detected using a scatter plot of ZPRED (predicted values) against SRESID (residual values). A well-behaved model shows no distinct pattern in the chart. Statistical tests such as the Glejser, Park, or White tests can be used to detect heteroscedasticity. If the assumption is violated, solutions include logarithmic transformations (if data are positive) or dividing by variables exhibiting heteroscedasticity. The Glejser test regresses independent variables against the absolute value of residuals, and if the significance value exceeds 0.05, no heteroscedasticity is present. The Glejser test results in Table 5 show that all independent variables have a significance value above 0.05, indicating no heteroscedasticity in the regression model.

Data Analysis and Discussion

To test hypotheses, the researcher applied SPSS. The data analysis results are shown in Table 7. The regression model's significance level was determined to be 0.024 based on the F test findings. This indicates that the variables in this study collectively create a multiple linear model with the false financial statement with a dependent variable. The fraudulent financial statement variables of each variable partially displayed in Table 8 are influenced by all independent variables, including financial stability, financial target, external pressure, ineffective monitoring, change in auditor, audit opinion, change in director, and the frequency of the CEO's picture. The following is an explanation of hypothesis testing based on Table 8.

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Table 6

Heteroscedasticity Testing with Glycerine Test

Models	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-.136	.346		-.392	.697
ACHANGE	-.977	.354	-.406	-2.759	.080
ROA	-.031	.306	-.017	-.101	.920
LEV	.135	.133	.169	1.020	.313
BDOUT	-.157	.358	-.058	-.440	.662
AUDCHANGE	-.088	.088	-.123	-.996	.324
AO	.311	.234	.172	1.329	.190
DCHANGE	.127	.093	.172	1.364	.179
FCEO	.046	.043	.141	1.074	.288

a. Dependent Variable: ABS_RES

Source : SPSS 27 Output

Table 7

F Test Results (ANOVA)

Models	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.266	8	.783	2.499	.024b
Residual	15.043	48	.313		
Total	21.309	56			

a. Dependent Variable: F-SCORE

b. Predictors: (Constant), FCEO, AUDCHANGE, BDOUT, DCAHNGE, ROA, AO, ACHANGE, LEV

Source : SPSS 27 Output

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Table 8

Test Results t

Models	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	-.539	.648		-.831	.410
ACHANGE	-.257	.662	-.058	-.387	.700
ROA	1.286	.572	.378	2.248	.029
LEV	-.024	.248	-.017	-.098	.923
BDOUT	.591	.669	.117	.883	.381
AUDCHANGE	-.474	.165	-.360	-2.873	.006
AO	.579	.438	.174	1.322	.192
DCHANGE	.031	.174	.022	.176	.861
FCEO	-.054	.080	-.091	-.682	.499

Source: SPSS 27 Output

Based on the results of the t-statistical test, the model of the linear regression equation can be formulated as follows:

F-Score = -.539 + (-.257)USCORE + 1.286ROA + (-.024)LEV + .591BDOUT + (-.474)AUDCHANGE + .579AO + .031DCHANGE + (-.054)FCEO + **ε**

Hypothesis Testing

Hypothesis Testing for Independent Variables of Financial Stability

The results of the t-test showed that ACHANGE had a regression coefficient of B = -0.257, with Sig. = 0.700 (> 0.05). This means that financial stability (ACHANGE) does not have a significant effect on fraudulent financial statements, so **H1 is rejected.** These findings are in line with research on SOEs that found that financial stability does not have a significant effect on financial statement fraud (Hermawati et al., 2024).

Hypothesis Testing for Target Financial Independent Variables

The results of the t-test showed that ROA had a regression coefficient of B = 1.286, with Sig. = 0.029 (< 0.05). This means that the financial target (ROA) has a significant effect on fraudulent financial statements, so H2 **is accepted**. In terms of consistency of significance, these results support the findings that ROA has an effect on fraud (Yanti & Munari, 2021; Vivianita & Indudewi, 2018), but it should be noted that in some studies the direction of the influence of ROA can be different (for example, negative), so the difference is more in the direction of the coefficient, not in the presence or absence of the influence.

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Hypothesis Testing for External Pressure Independent Variables

The results of the t-test showed that LEV had a regression coefficient of B = -0.024, with Sig. = 0.923 (> 0.05). Thus, external pressure (LEV) has no significant effect, so **H3 is rejected**. This finding is in line with Vivianita and Indudewi (2018) who concluded that leverage has no effect on financial statement fraud.

Hypothesis Testing for Ineffective Independent Variables

The results of the t-test showed that BDOUT had a regression coefficient of B = 0.591, with Sig. = 0.381 (> 0.05). This means that ineffective monitoring (BDOUT) does not have a significant effect, so **H4 is rejected**. These results are consistent with Vivianita and Indudewi (2018) who stated that the supervision variable (through independent commissioners) did not have a significant effect

Hypothesis Testing for Independent Variables Change in Auditors

The results of the t-test showed that AUDCHANGE had a regression coefficient of B = -0.474, with Sig. = 0.006 (< 0.05). This shows that the change of auditor has a significant effect on fraudulent financial statements, so H5 **is accepted**. This finding is in line with Yanti and Munari (2021) who also found auditors to change significantly to F-SCORE (indication of fraudulent financial statement).

Hypothesis Testing for Independent Variables Audit opinion

The results of the t-test showed that AO had a regression coefficient of B = 0.579, with Sig. = 0.192 (> 0.05). Thus, the audit opinion had no significant effect, so **H6 was rejected**. This finding is in line with Anggraeni and Handayani (2020) who concluded that audit opinions have no effect on financial statement fraud.

Hypothesis Testing for Independent Variables Change of Director

The results of the t-test showed that DCHANGE had a regression coefficient of B = 0.031, with Sig. = 0.861 (> 0.05). This means that the change of directors has no significant effect, so **H7 was rejected**. This result is in line with the research of Hermawati & Nugroho (2024) which stated that the change of director is not significant to financial statement fraud.

Hypothesis Testing for Independent Variables Frequent Number of CEO's Picture

The results of the t-test showed that FCEO had a regression coefficient of B = -0.054, with Sig. = 0.499 (> 0.05). This means that the frequent number of CEO's picture has no significant effect, so **H8 is rejected**. This finding is in line with Yanti and Munari (2021) who show that CEO picture is not significant to F-SCORE.

Coefficient of Determination

The determination coefficient test yielded a R Square (R^2) value of 0.294, indicating that independent variables such as financial stability, financial target, external pressure, ineffective monitoring, and change in financial statements can account for the variation in fraudulent financial statements (F-Score). auditor, audit opinion, director changes, and the frequency of CEO photos account for 29.4% of the total, with the remaining 70.6% being explained by variables other than the model.

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Table 9

Coefficient of Determination

Models	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.542a	.294	.176	.559826	2.593

a. Predictors: (Constant), FCEO, AUDCHANGE, BDOUT, DCAHNGE, ROA, AO, ACHANGE, LEV

b. Dependent Variable: F-SCORE

Source : SPSS 27 Output

CONCLUSIONS AND ADVICE

Conclusion

Based on the results of the analysis and testing of the hypothesis that has been carried out by the researcher, the following conclusions can be drawn:

1. Financial Stability does not have a significant effect on the occurrence of financial statement fraud.
2. Financial Target has a significant effect on the occurrence of financial statement fraud.
3. External Pressure does not have a significant effect on the occurrence of financial statement fraud.
4. Ineffective Monitoring has no significant effect on the occurrence of financial statement fraud.
5. Change in Auditor has a significant effect on the occurrence of financial statement fraud.
6. Audit opinion has no significant effect on the occurrence of financial statement fraud.
7. Change of Director does not have a significant effect on the occurrence of financial statement fraud.
8. Frequent Number of CEO's Picture does not have a significant effect on the occurrence of financial statement fraud.

Research Limitations and Suggestions

This study has several limitations. The focus on SOEs listed on the IDX limits the generalizability to non-SOEs. The banking sector was excluded due to its distinct financial structure, which isn't suitable for fraud detection using the F-Score model. The short observation period (2022–2024) may not capture long-term trends, and only eight Pentagon Fraud proxies were considered, suggesting room for further exploration of additional variables.

Future research could:

1) Broaden the Sample: Include non-SOEs to improve generalizability.
2) Develop Pentagon Fraud Proxies: Introduce new proxies or incorporate variables like earnings management or governance quality.
3) Use Alternative Fraud Measures: Tailor fraud detection models for industries like banking.
4) Extend the Observation Period: Capture long-term trends in reporting and governance.

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