

Research Article

Analysis of the Effect of the S.C.C.O.R.E Model in Detecting Potential Fraud in Financial Statements Through the Beneish M-Score Approach

Sanja Agata ^{1*}, Retno Yuni Nur Susilowati ²

¹ Faculty of Economics and Business, University of Lampung, Indonesia
e-mail : sanjaagt00@gmail.com

² Faculty of Economics and Business, University of Lampung, Indonesia
e-mail : retno.yuni@feb.unila.ac.id

Abstract: This study examines the key factors within the S.C.C.O.R.E model (stimulus, capability, collusion, opportunity, rationalization, ego), widely known as the Fraud Hexagon framework, in detecting the potential for financial statement fraud using the Beneish M-Score approach. The stimulus element is proxied by financial instability, capability by change in director, collusion by cooperation with government project, opportunity by ineffective monitoring, rationalization by change in auditor, and ego by the frequent number of CEO's pictures. This research focuses on companies that received the special E notation (companies with negative equity) listed on the Indonesia Stock Exchange (IDX) during the 2019-2023 period, with a total of 145 observations. The sample was selected using a purposive sampling technique. A quantitative approach is employed in this study, utilizing secondary data sourced from annual reports and financial statements, analyzed through logistic regression. The results show that financial instability, change in auditor, and frequent number of CEO's pictures have a positive and significant effect on the potential for financial statement fraud. Meanwhile, change in director, cooperation with government project, and ineffective monitoring have no significant influence on the potential for financial statement fraud.

Keywords: Fraud, Hexagon, financial, Beneish, M-Score.

1. Introduction

Financial reports play an important role as the main medium for companies to convey financial performance to stakeholders (Ginting & Daljono, 2023). However, the pressure to maintain a positive reputation amid declining performance often encourages management to manipulate financial reports, thereby increasing the risk of fraud (Octani et al., 2022). According to the Association of Certified Fraud Examiners report (2024), fraud or fraud is an act committed by individuals within a company with the aim of obtaining personal gain. These fraudulent actions can take the form of misuse of company assets, corrupt practices, or manipulation of financial statements that have a detrimental impact. Based on the ACFE (2024) survey, financial statement fraud accounted for only 5% of the total fraud cases identified in the period January 2022 to September 2023. Despite the low incidence rate, the financial impact is significant, with a median loss of USD 766,000 far greater than losses from asset misappropriation or corruption. Undetected fraud has the potential for serious consequences, ranging from damage to a company's reputation, loss of investor confidence, to substantial financial losses (Ginting & Daljono, 2023).

As a risk mitigation measure, the Indonesia Stock Exchange (IDX) has implemented a special notation system since December 27, 2018 through the I-Suite system as a warning for listed companies experiencing certain problems (Handayani, 2024). Based on Circular Letter SE-00017/BEI/07-2021, this notation is public information and not a formal sanction (Akadiati, 2020). Companies that successfully improve their financial performance, the IDX can remove the notation (Siagian et al., 2023). This system not only protects investors, but

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also encourages companies to better comply with regulations and strengthen their financial stability (Agusta & Ayu, 2023).

This research is focused on companies that obtain a special notation code E from the IDX, which is a company with negative equity, where total liabilities exceed total assets, which indicates a poor financial condition (Maharani & Napisah, 2024). This situation is generally caused by accumulated losses or high levels of debt (Siagian et al., 2023). In Indonesia, companies with such conditions are more vulnerable to manipulating financial statements. One case is PT Indofarma Tbk, which allegedly manipulated its financial statements for the 2020-2023 period through inventory overruns, fictitious transactions, and procurement of medical devices without feasibility studies, which resulted in state losses of IDR 371 billion (BPK RI, 2024).

Referring to the findings of cases in Indonesia and the ACFE report, it is important for companies to understand the factors that trigger fraud in order to design effective prevention strategies. One approach used in this study is the Fraud Hexagon theory introduced by Vousinas (2019). This theory proposes the S.C.C.O.R.E model, which includes six main elements, namely stimulus, capability, collusion, opportunity, rationalization, and ego. As an extension of previous fraud theories, the Fraud Hexagon provides a more comprehensive perspective in identifying the factors that cause fraud amid the dynamics of a complex business environment (Vousinas, 2019).

Research examining the factors in the S.C.C.O.R.E model of potential financial statement fraud still shows inconsistent variations in results, thus opening up space for research gaps that need to be studied more deeply. On the other hand, the prevalence of fraud cases emphasizes the importance of further study. This study develops the study of Achmad et al. (2022) which examines the S.C.C.O.R.E model in detecting financial statement fraud in state-owned companies (BUMN) in Indonesia, but with limited sample size and scope. As a new contribution, this study focuses on companies that obtained a special notation E from the IDX in the 2019-2023 period, which reflects a very vulnerable financial condition due to total liabilities exceeding total assets. This condition has the potential to encourage management to manipulate financial statements to improve the company's image. Therefore, this study is expected to enrich the literature regarding the role of the S.C.C.O.R.E model factors in detecting potential fraud, especially in companies with vulnerable financial risks.

2. Literature Review

2.1. Agency Theor

Agency theory was proposed by Jensen & Meckling (1976) in response to the information imbalance between principals (shareholders) and agents (management). The difference in interests between these two parties has the potential to cause conflict, especially regarding the transparency of financial statements (Aviantara, 2021). Management, as the party that controls the company's internal information, has the opportunity to act inconsistently with the interests of shareholders, especially in situations of performance pressure (Lastanti et al., 2022). This mismatch of interests and information asymmetry opens up opportunities for agents to commit fraud, such as manipulation of financial statements, in order to maintain an image or achieve certain targets for personal gain (Imtikhani, 2021).

2.2. Financial Statement Fraud

Financial statement fraud is a form of fraud committed by individuals or groups within the company to obtain personal gain through misuse of company assets, authority, or resources (ACFE 2020; Rahmasari 2023). Fraud schemes are generally carried out by overstatement of revenue or profit, and understatement of liabilities and expenses (Christian et al., 2022). One method that is widely used to detect potential manipulation is the Beneish M-Score developed by Messod D. Beneish in 1999.

2.3. Fraud Hexagon Theory

The Fraud Hexagon Theory introduced by Georgios L. Vousinas in 2019, is a development of previous models such as the Fraud Pentagon, through the insertion of additional elements in the form of collusion, this model was developed into S.C.C.O.R.E which includes six key components in identifying potential financial statement fraud, namely stimulus, capability, collusion, opportunity, rationalization, and ego. These six elements interact with each other in creating conditions that allow fraud to occur in the organization.

2.4. Hypothesis Development

2.4.1. The Effect of Financial Instability on Potential Financial Statement Fraud

Stimulus represents the pressure experienced by management so that the company's image is maintained positively in the eyes of stakeholders. In this study, stimulus is measured through financial instability, which is reflected in significant fluctuations in the company's total assets from year to year (Imtikhani, 2021). Asset stability is an important indicator because large assets are expected to generate optimal returns for investors. However, high asset growth can also trigger management to manipulate financial reports to show strong performance (Aviantara, 2021). This is also supported by the findings (Rahmatika et al., 2019; Achmad et al., 2022) also show that financial instability is positively correlated with the increased potential for financial statement fraud. Thus, the proposed hypothesis is:

H1: Financial instability has a positive effect on the potential for fraudulent financial statements.

2.4.2. The Effect of Change in Director on Potential Financial Statement Fraud

Capability refers to an individual's ability to commit fraud, which in this study is measured using the change in director indicator. Changes in directors are often associated with potential manipulation of financial statements, especially when new directors are appointed to improve poor performance under previous leadership (Situngkir & Triyanto, 2020). This condition can signal the potential for previous financial reporting irregularities (Achmad et al., 2022). The leadership transition process also often triggers managerial instability, which opens up opportunities for new managers to commit fraud to show better short-term results (Sihombing & Eirene, 2022). Previous research (Sasongko & Wijyantika 2019; Aviantara 2021) supports the finding that director turnover is positively correlated with increased potential for financial statement fraud. Thus, the proposed hypothesis is:

H2: Change in director has a positive effect on the potential for financial statement fraud.

2.4.3. The Effect of Cooperation with Government Projects on Potential Financial Statement Fraud

Collusion according to Vousinas (2019) is hidden cooperation between two or more parties to commit fraud for personal or group interests. One of the indicators used to measure collusion is cooperation with government projects (Sari & Nugroho, 2020). Cooperation with the government provides strategic benefits for companies, such as access to large budgets, long-term project stability, and easy access to credit (Imtikhani, 2021). However, this condition also increases the risk of collusion when management abuses privileges, such as overstating project budgets for greater profits (Octani et al., 2022). Previous research (Handoko 2021; Sari & Nugroho 2020) supports the finding that cooperation with government projects is positively correlated with the increased potential for financial statement fraud. Thus, the proposed hypothesis is:

H3: Cooperation with government projects has a positive effect on the potential for fraudulent financial statements.

2.4.4 The Effect of Ineffective Monitoring on Potential Financial Statement Fraud

Opportunity refers to opportunities that allow individuals to commit fraud. In this study, opportunity is measured using an indicator of ineffective monitoring, namely weak internal supervision caused by the low proportion of independent commissioners (Achmad et al., 2022). Financial Services Authority Regulation Number 57 / POJK.04 / 2017 regulates that at least 30% of the members of the board of commissioners must be independent parties (Fatimah, 2023). The independent board of commissioners plays an important role in increasing the effectiveness of supervision and preventing fraud. The smaller the number of independent commissioners, the higher the risk of supervisory ineffectiveness which opens up opportunities for management to manipulate financial statements (Sihombing & Eirene, 2022). This is also supported by the findings (Apriliana & Agustina, 2017; Situngkir &

Triyanto, 2020) showing that ineffective monitoring has a positive effect on increasing the potential for fraudulent financial statements. Thus, the proposed hypothesis is:

H4: Ineffective monitoring has a positive effect on the potential for fraudulent financial statements.

2.4.5. The Effect of Change in Auditor on Potential Financial Statement Fraud

Rationalization is the process of justifying fraudulent actions so that they are considered reasonable or acceptable (Achmad et al., 2022). In this study, rationalization is measured through the change in auditor indicator, where auditor changes are often made by companies to eliminate traces of fraud or replace auditors who are considered too strict in supervision (Ginting & Daljono, 2023). Auditor changes are often rationalized on technical grounds, when in fact they aim to hide the practice of manipulating financial statements (Mukaromah & Budiwitjaksono, 2021). This is also supported by the findings (Noble, 2019; Ozcelik, 2020) found that a change in auditor has a positive effect on increasing the potential for financial statement fraud. Thus, the proposed hypothesis is:

H5: Change in auditor has a positive effect on the potential for financial statement fraud.

2.4.6. The Effect of Frequent Number of CEO's Picture on Potential Financial Statement Fraud

Ego refers to the superior or narcissistic nature of a CEO. In this study, the ego element is measured through the frequent number of CEO's picture indicator, which refers to the number of occurrences of photos or excessive information about the director in the annual report, reflecting high ego or managerial arrogance (Larum et al., 2021). This characteristic is associated with narcissistic personality disorder, where individuals feel special and require excessive recognition (Vousinas, 2019). Directors with high egos tend to ignore internal controls and are more at risk of committing fraud to maintain their status or influence (Achmad et al., 2022). This is also supported by the findings (Bawekes et al., 2018; Maryadi et al., 2020; Sari & Nugroho, 2020) also show that the frequent number of CEO's pictures has a positive effect increasing the potential for financial statement fraud. Thus, the proposed hypothesis is:

H6: Frequent number of CEO's picture has a positive effect on the potential for Financial Statement Fraud.

3. Research Methods

3.1. Type and Source

This research uses a quantitative approach with secondary data obtained from annual reports and financial reports. Data is collected through the documentation method accessed from the official IDX website (www.idx.co.id) and the official website of each company for the 2019-2023 period. The population in this study are companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2023 period. The sample used is companies that obtain a special notation code E, namely companies with negative equity in the latest financial statements as of October 14, 2024.

3.2. Operational Definition and Measurement of Variables

The dependent variable in this study is the potential for financial statement fraud as measured using the Beneish M-Score. This model utilizes eight financial ratios to detect indications of financial statement manipulation. The Beneish M-Score is calculated based on a specific formula designed to identify distortions in the presentation of financial statements as follows:

$$\text{M-Score} = -4.84 + 0.920(\text{DSRI}) + 0.528(\text{GMT}) + 0.404(\text{AQI}) + 0.892(\text{SGI}) + 0.115(\text{DEPI}) - 0.172(\text{SGAI}) - 0.327(\text{LVGI}) + 4.679(\text{TATA})$$

Table 1. Description of Beneish M-Score Calculation Formula

	Rasio	Formula
1	Days sales receivable index	$DSRI = \frac{(Net\ Receivables_t / Sales_t)}{(Net\ Receivables_{t-1} / Sales_{t-1})}$
2	Gross margin index	$GMI = \frac{(Sales_{t-1} - COGS_{t-1}) / Sales_{t-1}}{(Sales_t - COGS_t) / Sales_t}$
3	Aset quality index	$AQI = \frac{1 - (Current\ Asset_t + Net\ Fixed\ Assets_t) / Total\ Assets_t}{1 - (Current\ Asset_{t-1} + Net\ Fixed\ Assets_{t-1}) / Total\ Assets_{t-1}}$
4	Sales growth indeks	$SGI = \frac{Sales_t}{Sales_{t-1}}$
5	Depreciation index	$DEPI = \frac{[Depreciation_{t-1} / (PPE_{t-1} + Depreciation_{t-1})]}{[Depreciation_t / (PPE_t + Depreciation_t)]}$
6	Sales general administrative Indeks	$SGAI = \frac{SGA_t / Sales_t}{SGA_{t-1} / Sales_{t-1}}$
7	Leverage index	$LVGI = \frac{[(Current\ liabilities_t + Total\ long\ term\ debt_t) / Total\ assets_t]}{[(Current\ liabilities_{t-1} + Total\ long\ term\ debt_{t-1}) / Total\ assets_{t-1}]}$
8	Total accruals to total assets	$TATA = \frac{(Net\ income\ from\ continuing\ operations_t - Cash\ flow\ from\ operations_t)}{Total\ Assets_t}$

Source: Beneish (1999)

Beneish (1999) states that companies with M-Score below -2.22 tend not to commit financial statement fraud. Conversely, an M-Score above -2.22 indicates the potential for financial statement manipulation. In this study, companies that indicated fraud were coded 1, while those that did not indicated were coded 0.

Table 2. Operational Definition of Independent Variables

Variables		Measurement	Scale	Source
Stimulus	Financial Instability (X1)	$ACHANGE = \frac{Total\ assets_t - Total\ assets_{t-1}}{Total\ assets_{t-1}}$	Rasio	(Skousen et al., 2009)
Capability	Change in Director (X2)	The dummy variable is coded as 1 if there is a change of director, and 0 if there is no change of director during the study period.	Nominal	(Wolfe & Hermanson, 2004)
Collusion	Cooperation with Government Project (X3)	The dummy variable is coded as 1 if there is cooperation with the government, and 0 if there is no cooperation with the government during the study period.	Nominal	(Vousinas, 2019)
Opportunity	Ineffective Monitoring (X4)	$BDOOUT = \frac{\sum Independent\ Board\ of\ Commissioners}{\sum Board\ of\ Commissioners}$	Rasio	(Skousen et al., 2009)
Rationalization	Change in Auditor (X5)	The dummy variable is coded as 1 if there is a change of auditor, and 0 if there is no change of auditor during the study period	Nominal	(Skousen et al., 2009)
Ego	Frequent Number of CEO's Picture (X6)	Calculating the number of director photos featured in the financial statements	Nominal	(Horwath, 2012)

Source: Adapted from various sources

3.3. Data Analysis Method

This study uses logistic regression analysis method as a data analysis technique. This method is utilized to test the relationship between the independent variable and the dependent variable, where the dependent variable is a scale with two categories, such as "yes" or "no", based on the probability of an event occurring. The analysis process was carried out with the help of Microsoft Excel 2021 software and SPSS version 30. The analysis model used in this study can be explained as follows:

$$FFR_{it} = \alpha + \beta_1 X1_{it} + \beta_2 X2_{it} + \beta_3 X3_{it} + \beta_4 X4_{it} + \beta_5 X5_{it} + \beta_6 X6_{it} + \epsilon$$

Description:

FFR_{it} = Potential Financial Statement Fraud of Company i, in Year t

α = Constant

β_1 - β_6 = Regression Coefficient

X1_{it} = Financial Instability of Company i, in Year t

X2_{it} = Change in Director of Company i, in Year t

X3_{it} = Cooperation with Government Project Company i, in Year t

X4_{it} = Ineffective Monitoring of Company i, in Year t

X5_{it} = Change in Auditor of Company i, in Year t

X6_{it} = Frequent Number of CEO's Picture of Company i, in Year t

ϵ = Error Term

4. Results and Discussion

The population in this study are all companies with special notation code E listed on the Indonesia Stock Exchange (IDX) as of October 14, 2024, with a total of 145 observations from 29 companies during the 2019-2023 period. The sampling technique uses purposive sampling method based on predetermined criteria. Details of the research sample are shown in the following table:

Table 3. Research sampel

No.	Criteria	Total
1	Companies that obtained code Notation E (Report shows negative equity)	47
2	Companies suspended by the Indonesia Stock Exchange	(4)
3	Companies that do not present financial reports during the study period in a row	(5)
4	Financial statements presented in USD	(7)
5	Companies that are newly listed on the Indonesia Stock Exchange in 2021	(1)
6	Companies that do not submit the financial data required by researchers in full	(1)
Total Sample Used		29
Observation Period 2019, 2020, 2021, 2022, 2023		5 years
Total Research Data (29 companies × 5 years)		145

Source: Processed data (2025)

4.1. Descriptive Statistical Analysis

Table 4. Descriptive Statistical Test Results

Variable Symbol	N	Minimum	Maximum	Mean	Std. Deviation
ACHANGE	145	-0,890	2,222	-0,026	0,453
DCHANGE	145	0	1	0,17	0,379
COL	145	0	1	0,38	0,487
BDOUT	145	0,3	4,0	0,867	0,475
AUDCHANGE	145	0	1	0,21	0,406
CEOPIC	145	0	13	3,66	2,792
FFR	145	0	1	0,32	0,470
Valid N (listwise)	145				

Operational Definition of Variables:

ACHANGE = Financial Instability; DCHANGE = Change in Director; COL = Cooperation with Government Project; BDOUT = Ineffective Monitoring; AUDCHANGE = Change in Auditor; CEOPIC = Frequent Number of CEO's Picture; FFR = Potential Financial Statement Fraud

Source: Processed data (2025)

The total sample in this study is 145 observations. The first independent variable, financial instability (ACHANGE), has a minimum value of -0.890 and a maximum of 2.222. The average value of -0.026 indicates a downward trend in total assets from year to year. The standard deviation of 0.453, which is greater than the mean, indicates high variation and heterogeneous distribution. Change in director variable (DCHANGE), the average value is 0.17. The standard deviation of 0.379, which is greater than the mean, indicates high variation

and heterogeneous distribution. As a dummy variable, the maximum value is 1 (there is a change in director) and the minimum is 0 (there is no change in director).

The cooperation with government project (COL) variable has an average of 0.38, which indicates that 38% of companies in the sample have cooperation projects with the government. The standard deviation of 0.487 indicates heterogeneous data distribution, with a maximum value of 1 (having a cooperation project with the government) and a minimum of 0 (not having a cooperation project). Ineffective monitoring variable (BDOUT), the minimum value is 0.3 and the maximum is 4.0. The average of 0.867 indicates that in general the proportion of independent commissioners in the sample companies is relatively high. The standard deviation of 0.475 which is smaller than the average indicates a homogeneous distribution of data.

The change in auditor variable (AUDCHANGE) has an average of 0.21, with a standard deviation of 0.406 which is greater than the average, indicating high variation. As a dummy variable, the maximum value is 1 (auditor change) and the minimum is 0 (no auditor change). The variable frequent number of CEO's picture (CEOPIC), the minimum value is 0 and the maximum is 13. The average of 3.66 indicates that in general the company displays the photo of the CEO 3 to 4 times in the annual report. The standard deviation of 2.792 which is smaller than the average shows that the distribution of data tends to be homogeneous.

Meanwhile, the dependent variable on the potential for financial statement fraud (FFR) has an average of 0.32, indicating that 32% of companies are indicated as potentially fraudulent. The standard deviation of 0.470 indicates high data variation with heterogeneous distribution. As a dummy variable seen through the results of the Beneish M-Score calculation, the maximum value is 1 (potential financial statement fraud), while the minimum value is 0 (no potential financial statement fraud).

4.2. Logistic Regression Analysis Testing

4.2.1. Hosmer and Lemeshow's Goodness of Fit

Table 5. Hosmer and Lemeshow Test Results

Step	Chi-square	df	Sig.
1	9,971	8	0,267

Source: Processed data (2025)

This test is used to assess the suitability of the logistic regression model for research data (Ghozali, 2021). The model is declared fit if the significance value is > 0.05 . Based on the results of the Hosmer and Lemeshow test, a significance value of 0.267 is obtained which is greater than the predetermined significance limit, namely 0.05. Thus, the regression model used is feasible and can be used for further analysis because it is able to predict the observed value well.

4.2.2. Fit Overall Model Test

Table 6. Comparison Results -2 Log Likelihood

Nilai -2 Log Likelihood Awal	182,685
Nilai -2 Log Likelihood Akhir	149,481
Penurunan Nilai-2 Log Likelihood	33,204

Source: Processed data (2025)

The Overall Model Fit test is used to assess the suitability of the logistic regression model with research data through a comparison of the -2 Log Likelihood value before and after entering the independent variables. A decrease in the -2 Log Likelihood value indicates an increase in model fit (Ghozali, 2021). Based on the results, the initial -2 Log Likelihood value (Block 0) of 182.685 decreased to 149.481 after six independent variables were included in the final -2 Log Likelihood model (Block 1), with a decrease of 33.204. These results indicate that the regression model built fits the data better and has a better fit than the initial model.

4.2.3. Determinant Coefficient Test

Table 7. Summary Model Test Results

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	149,481 ^a	0,205	0,286
a. Estimation terminated at iteration number 5 because parameter estimates changed by less than 0,001.			

Source: Processed data (2025)

The Coefficient of Determination test aims to measure the extent to which the independent variable is able to explain the variation in the dependent variable (Ghozali, 2021). In logistic regression, the Cox & Snell R Square and Nagelkerke R Square indicators are used. The test results show that the Cox & Snell R Square value is 0.205 and the Nagelkerke R Square is 0.286. Nagelkerke R Square is a modification of Cox & Snell to make it more like R^2 in linear regression. The value of 0.286 indicates that the model is able to explain 28.6% of the variation in potential financial statement fraud, while the remaining 71.4% is explained by other variables outside the model.

4.2.4. Classification Matrix Test

Table 8. Classification Table Test Results

Observed \ Predicted		FFR		Percentage Correct
		Not Potential Fraud	Potential Fraud	
FFR	No Fraud Potential	92	6	93,9
	Potentially Fraud	27	20	42,6
Overall Percentage				77,2

a. The cut value is .500

Operational Definition of Variables: FFR = Potential Financial Statement Fraud

Source: Processed data (2025)

The classification matrix is used to measure the accuracy of the logistic regression model in predicting the potential for financial statement fraud (Ghozali, 2021). Based on the results, the model has an accuracy of 93.9% in classifying companies that do not have the potential to commit fraud, and 42.6% for companies that have the potential to cheat. Overall, the model has an accuracy rate of 77.2%. These results indicate that the model is more effective in identifying companies that are not potentially fraudulent, but has limitations in detecting cases that are truly potentially fraudulent.

4.3. Hypothesis Test

4.3.1. Omnibus Test of Model

Table 9. Omnibus Tests of Model Coefficients Results

		Chi-square	df	Sig.
Step 1	Step	33,204	6	0,001
	Block	33,204	6	0,001
	Model	33,204	6	0,001

Source: Processed data (2025)

Omnibus Test of Model Coefficients is used to assess whether the independent variables simultaneously affect the dependent variable in the logistic regression model. Based on the results, a significance value of 0.001 was obtained, which is smaller than the conventional significance level of 0.05. This indicates that the logistic regression model is simultaneously significant and worth using in the analysis. In other words, the independent variables included in the model jointly have a significant influence on the dependent variable.

4.3.2. Wald test

Table 10. Wald Test Results

Variable Symbol	B	S.E.	Wald	df	Sig.	Results
ACHANGE	1,653	0,536	9,513	1	0,002	H1 accepted
DCHANGE	0,451	0,520	0,754	1	0,385	H2 rejected
COL	0,052	0,439	0,014	1	0,906	H3 rejected
BDOUT	0,297	0,422	0,496	1	0,481	H4 rejected
AUDCHANGE	1,469	0,489	9,017	1	0,003	H5 accepted
CEOPIC	0,176	0,075	5,562	1	0,018	H6 accepted
Constant	-2,093	0,525	15,878	1	0,001	

a. Variable(s) entered on step 1: ACHANGE = Financial Instability; DCHANGE = Change in Director; COL = Cooperation with Government Project; BDOUT = Ineffective Monitoring; AUDCHANGE = Change in Auditor; CEOPIC = Frequent Number of CEO's Picture

Source: Processed data (2025)

5. Discussion

5.1. The Effect of Financial Instability on Potential Financial Statement Fraud

Based on the results of hypothesis testing in this study, hypothesis **H1 is accepted**. This shows that the pressure element (stimulus) in the S.C.C.O.R.E model, proxied by the financial instability variable, has a positive and significant effect on the potential for fraudulent financial statements with measurement using the ratio of changes in total assets, obtained a significance value of 0.002 which is smaller than the significance limit $\alpha = 0.05$ and a positive coefficient of 1.653. These findings indicate that significant changes in the company's total assets trigger financial pressures that can encourage management to manipulate financial statements in order to maintain an image in the eyes of shareholders. The results of this study support and strengthen the theoretical basis used, namely agency theory developed by Jensen and Meckling (1976) and the fraud hexagon theory introduced by Vousinas (2019). This finding is in line with the research of Achmad et al. (2022), which found that if the value of the company's asset growth fluctuates, management may experience pressure to adjust financial reports to make asset growth look stable. In addition, research conducted by Mukaromah & Budiwitjaksono (2021) states that companies facing greater economic pressure have a higher chance of engaging in fraudulent practices. These results are also reinforced by previous research conducted by (Rahmatika et al., 2019; Situngkir & Triyanto, 2020; Choirunissa & Andi, 2023).

5.2. The Effect of Change in Director on Potential Financial Statement Fraud

Based on the results of hypothesis testing in this study, hypothesis **H2 was rejected**. This shows that the capability element in the S.C.C.O.R.E model proxied by the change in director variable has no significant effect on the potential for fraudulent financial statements, with a significance value of 0.385 which exceeds the significance limit of $\alpha = 0.05$ and a positive coefficient of 0.451. Therefore, this study does not support agency theory as a theoretical basis. This finding is in line with the research of Utami et al. (2022) shows that director turnover does not always correlate with financial statement manipulation practices, because the change can also be caused by other factors such as the end of the term of office, resignation, entering retirement, or other factors such as death. In addition, research by Achmad et al. (2022) explains that although director turnover can be an indication of unsatisfactory performance and is often associated with potential fraud, strict regulations and a strong internal control system limit the opportunities for financial statement manipulation. These results are also reinforced by previous research conducted by (Evana et al., 2019; Situngkir & Triyanto, 2020; Aviantara, 2021).

5.3. The Effect of Cooperation with Government Projects on Potential Financial Statement Fraud

Based on the results of hypothesis testing in this study, hypothesis **H3 was rejected**. This shows that the collusion element in the S.C.C.O.R.E model proxied by the cooperation with government project variable has no significant effect on the potential for fraudulent financial statements, with a significance value of 0.906 which exceeds the significance limit of $\alpha = 0.05$ and a positive coefficient of 0.052. Therefore, this study does not support agency theory as a theoretical basis. This finding shows that the existence of project cooperation with

the government does not always increase the potential for fraud, which can be caused by the existence of strict regulations and a good supervision system on government projects. In line with the research of Nanda et al. (2019) which states that cooperation with government projects is not always the main factor in triggering potential fraud because of high risks such as strict supervision, periodic audits, threats of legal sanctions, and transparency pressures from regulators and the public, encouraging management to comply with the rules and maintain the integrity of financial statements. In addition, this finding is also supported by research (Wijayani & Ratmono, 2020; Sari & Nugroho, 2020; Octani et al., 2022).

5.4. The Effect of Ineffective Monitoring on Potential Financial Statement Fraud

Based on the results of hypothesis testing in this study, hypothesis **H4 was rejected**. This shows that the opportunity element in the S.C.C.O.R.E model represented by the ineffective monitoring variable, as measured by the percentage of independent commissioners, does not show a significant effect on the potential for fraudulent financial statements. With a significance value of 0.481 (> 0.05) and a positive coefficient of 0.297. In the context of this study, all sample companies have fulfilled the minimum requirement that the percentage of independent commissioners must be at least 30% of the total members of the board of commissioners according to the rules of the Financial Services Authority No. 57 / POJK.04 / 2017 regarding the proportion of independent commissioners, which seems to be quite effective in maintaining corporate governance. This finding is supported by research by Achmad et al. (2022) which shows that the existence of independent commissioners is often limited to fulfilling regulatory requirements, without having a substantial effect on the effectiveness of the supervisory function. This situation can be the reason why weak supervision does not have a significant impact on the potential for fraud. This finding is also supported by other studies (Nanda et al., 2019; Kusumosari & Solikhah, 2021; Lastanti et al., 2022).

5.5. The Effect of Change in Auditor on Potential Financial Statement Fraud

Based on the results of hypothesis testing in this study, hypothesis **H5 is accepted**. This shows that the rationalization element proxied through the change in auditor variable is proven to have a positive and significant effect on the potential for fraudulent financial statements, indicated by a significance value of 0.003 (< 0.05) and a positive coefficient of 1.469. These findings indicate that auditor turnover can be a strategy for companies to cover up fraudulent practices or replace auditors who are considered too strict in the supervision process. The results of this study support and strengthen the theoretical basis used, namely agency theory. Mukaromah & Budiwitjaksono (2021) state that auditor turnover is often used to eliminate traces of fraud. In addition, these results are reinforced by research (Ozcelik, 2020; Umar et al., 2020; Jannah et al., 2021), which concluded that the more frequent auditor changes occur, the higher the potential for fraudulent financial reporting.

5.6. The Effect of Frequent Number of CEO's Picture on Potential Financial Statement Fraud

Based on the results of hypothesis testing in this study, hypothesis **H6 is supported**. This shows that the ego element in the S.C.C.O.R.E model proxied through the frequent number of CEO's picture variable is positively and significantly correlated with the potential for fraudulent financial statements, with a significance level of 0.018 (< 0.05) and a positive coefficient of 0.176. These results support agency theory where agency conflicts exist because the opportunistic behavior of agents arises when agents prioritize strengthening their own image over the interests of shareholders. The results of this study are in line with the findings of Larum et al. (2021), which show that directors who display excessive photos of themselves in financial reports reflect narcissistic behavior, which is related to the desire to demonstrate superiority and the need for recognition. Sari & Nugroho (2020) also found that more photos of the lead director in the annual report may reflect high arrogance in the company's leadership. Excessive arrogance can increase fraud tendencies because directors with a high sense of superiority tend to ignore internal controls and feel that the rules do not apply to them. This finding is reinforced by research (Bawekes et al., 2018; Maryadi et al., 2020; Larum et al., 2021).

6. Conclusion and Suggestions

This study aims to analyze the effect of the S.C.C.O.R.E model on the potential for financial statement fraud in companies that obtain a special notation E on the Indonesia Stock Exchange for the 2019-2023 period. Based on the results of logistic regression analysis, it was found that three variables in the S.C.C.O.R.E model, namely financial instability as a representation of stimulus, change in auditor as a representation of rationalization, and frequent number of CEO's picture as a representation of ego, have a positive and significant effect on the potential for fraudulent financial statements. Meanwhile, three other variables, namely change in director (capability), cooperation with government projects (collusion), and ineffective monitoring (opportunity), did not show a significant effect. These results indicate that financial pressure, rationalization of managerial actions, and the egoistic nature of company leaders are important factors that encourage fraudulent financial statements, in accordance with the fraud hexagon theory.

This study has several limitations, including the use of one proxy for each element in the S.C.C.O.R.E model which does not reflect the complexity of the factors that cause financial statement fraud. Therefore, it is recommended that future research use more diverse proxies, for example for the collusion element, it can consider indicators such as the e-procurement system, audit fees, or political connections. Future research is also expected to be conducted on companies with different characteristics, such as certain industrial sectors or companies listed on the stock exchanges of other countries. This can help identify more universal or specific patterns related to financial statement fraud.

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