

Pentagon Fraud Analysis in Detecting Fraudulent Financial Reporting Using the Fraud Score Model

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Kata kunci : Kecurangan Laporan Keuangan, Fraud Pentagon

Abstract: Penelitian ini dilakukan untuk mengetahui pengaruh fraud pentagon (pressure, opportunity, rationalization, capability dan arrogance) terhadap fraudulent financial reporting pada perusahaan sektor keuangan yang terdaftar di Bursa Efek Indonesia tahun 2017-2019. Menggunakan metode penelitian kuantitatif asosiatif. Populasi penelitian ini adalah sebanyak 100 perusahaan dengan sampel 49 perusahaan selama 3 periode, sehingga didapat sampel sejumlah 147 yang diambil dengan teknik purposive sampling. Metode pengujian penelitian ini melalui analisis regresi berganda dengan bantuan program SPSS 22. Hasil analisis uji parsial menunjukkan bahwa pressure dan opportunity berpengaruh signifikan terhadap fraudulent financial reporting. Sedangkan rationalization, capability dan arrogance tidak berpengaruh signifikan terhadap fraudulent financial reporting. Hasil pengujian secara bersama-sama (simultan) pressure, opportunity, rationalization, capability dan arrogance berpengaruh signifikan terhadap fraudulent financial reporting.

Keywords : Fraudulent Financial Reporting, Fraud Pentagon

Abstract: This study was conducted to determine the effect of pentagon fraud (pressure, opportunity, rationalization, capability and arrogance) in detecting fraudulent financial reporting using F-Score in financial companies listed on the Indonesia Stock Exchange in 2017-2019. Using associative quantitative research methods. The population of this study are 100 companies with 49 sample of companies for 3 periods, so the sample total is 147 samples was obtained which was taken by purposive sampling technique. The testing method of this research is through multiple regression analysis with the SPSS 22 program. The results of the partial test analysis show that pressure and opportunity has significant effect in detecting fraudulent financial reporting. Whereas rationalization, capability and the arrogance variable has insignificant effect in detecting fraudulent financial reporting. The test results simultaneously are pressure, opportunity, rationalization, capability and arrogance has significant effect in detecting fraudulent financial reporting.

Introduction

The last process in the accounting cycle is the results obtained in the form of financial statements (Triastuti, et al., 2020). Financial statements present information about the financial position and performance of the company that helps users of financial statements in making decisions (Pribadi, et al., 2018).

Financial reporting standards must be relevant, not misleading to readers or those receiving information, easy to understand, reliable, and comparable (Abbas et al., 2020). Because if the company does not reflect its financial statements in real conditions, it will result in fraud (Fuad et al., 2020).

Financial statement fraud can be triggered because the agent feels he has the opportunity to commit fraud or pressure that demands the agent to carry out the company's operational activities properly from the principal (Abbas et al., 2020).

According to the Association of Certified Fraud Examiners (ACFE), fraudulent financial reporting is a deliberate misstatement of the reporting of the company's economic condition by misrepresenting or omitting financial information or disclosing financial information to obscure financial statement users in making decisions. (Akbar, 2017).

Agency theory is a contract that involves one or more people, in this case the principal employs another person (the agent) with the aim of providing a service and delegating authority to the agent in making the right and best decisions for the principal (Jensen, 2003). & Meckling, 1976).

In essence, according to this theory, the relationship between shareholders or investors (principal) and management (agent) is difficult to create because of a conflict of interest (Agustina & Pratomo, 2019). The agent has more information than the principal. This relationship can lead to a condition of information imbalance or often referred to as information asymmetry (Agustin, 2019). The conflict of interest and information asymmetry that occurs between the principal and the agent creates an attitude of distrust because the agent will act in the personal interest and not maximize the interests of the principal. This condition provides a great opportunity for agents to commit fraud (Agustina & Pratomo, 2019).

Based on the results of a survey conducted by the ACFE Indonesia Chapter, it shows that the most detrimental fraud in Indonesia based on ACFE survey data (2020) is presented that corruption is in the percentage of 69.9%, misuse of state and company assets/wealth at 20.9% and 9.2% for financial statement fraud. Despite being in the lowest rank, cases of financial statement fraud cannot be ignored because they will still cause bigger and bigger losses.

Accounting scandals to date have grown widely. One of the most well-known financial reporting fraudulent practices to this day is the ENRON case. The moral hazard behavior carried out by Enron itself was that the Enron company manipulated the profits listed in the financial statements of 600 million USD when in fact the Enron company suffered a loss. As a result of this fraudulent practice, Enron went bankrupt and left a sizeable debt of 31.2 billion USD (Zelin, 2018).

One of the most popular cases and had become a discussion for accounting practices, especially banking accounting in Indonesia, was the case that occurred at Citibank which was carried out by a former Relationship Manager, Malinda Dee. Malinda Dee was charged with criminal acts of embezzlement of customer funds and money laundering of Rp 16.63 billion (Tessa & Harto, 2016).

Another fraud case is the case of alleged window dressing 2018 financial statements by PT. Bank Tabungan Negara (BTN) in the form of lending that does not comply with the provisions to P.T. Asset Management Company (PPA). From this, it can be seen that the opportunity factor that motivates the directors of PT BTN is to minimize the company's bad loans by selling receivables. Then there is the ability factor which shows that there are efforts to improve the performance results of the previous directors that allow fraud to occur (Situngkir & Triyanto, 2020).

Based on the company's fraudulent actions for various reasons, detection and supervision are needed. Detection of financial statement fraud is an initial effort to reduce asset misappropriation and earnings management abuse (Susilo et al., 2021).

In a survey conducted by the Association of Certified Fraud Examiner (ACFE) in 2019 it was shown that the financial and banking sectors were the sectors that experienced the most fraud cases compared to other sectors.

In this study, the researcher uses elements of Crowe's fraud pentagon theory as a basis for research in detecting fraud in financial statements because this theory is a refinement of Cressey's fraud triangle theory and Wolfe and Hermanson's fraud diamond.

From the description above, the authors are interested in conducting research with the title "Pentagon Fraud Analysis in Detecting Fraudulent Financial Reporting Using the Fraud Score Model"

Research Method

This research is quantitative and the method used in this research is descriptive and verification method. In this study, we will examine the causal relationship or influence of each variable consisting of independent variables, namely pressure proxied by financial targets, opportunity proxied by ineffective monitoring, rationalization proxied by change in auditors, capability proxied by change of director and arrogance proxied by dualism positions. And proxied on the dependent variable, namely financial statement fraud (F-Score) in financial sector companies listed on the Indonesia Stock Exchange for the 2017-2019 period.

The sampling method used is the purposive sampling method, namely sampling based on considerations and criteria. The sampling criteria in this study were financial sector companies listed on the Indonesia Stock Exchange (IDX) during the 2017-2019 period, presenting annual reports on the company website or IDX website for 3 years and experiencing no losses during the study period. Based on the predetermined criteria, there are 49 companies that meet the criteria

for selecting the sample with an observation period of 3 years, so that the total observations are 147.

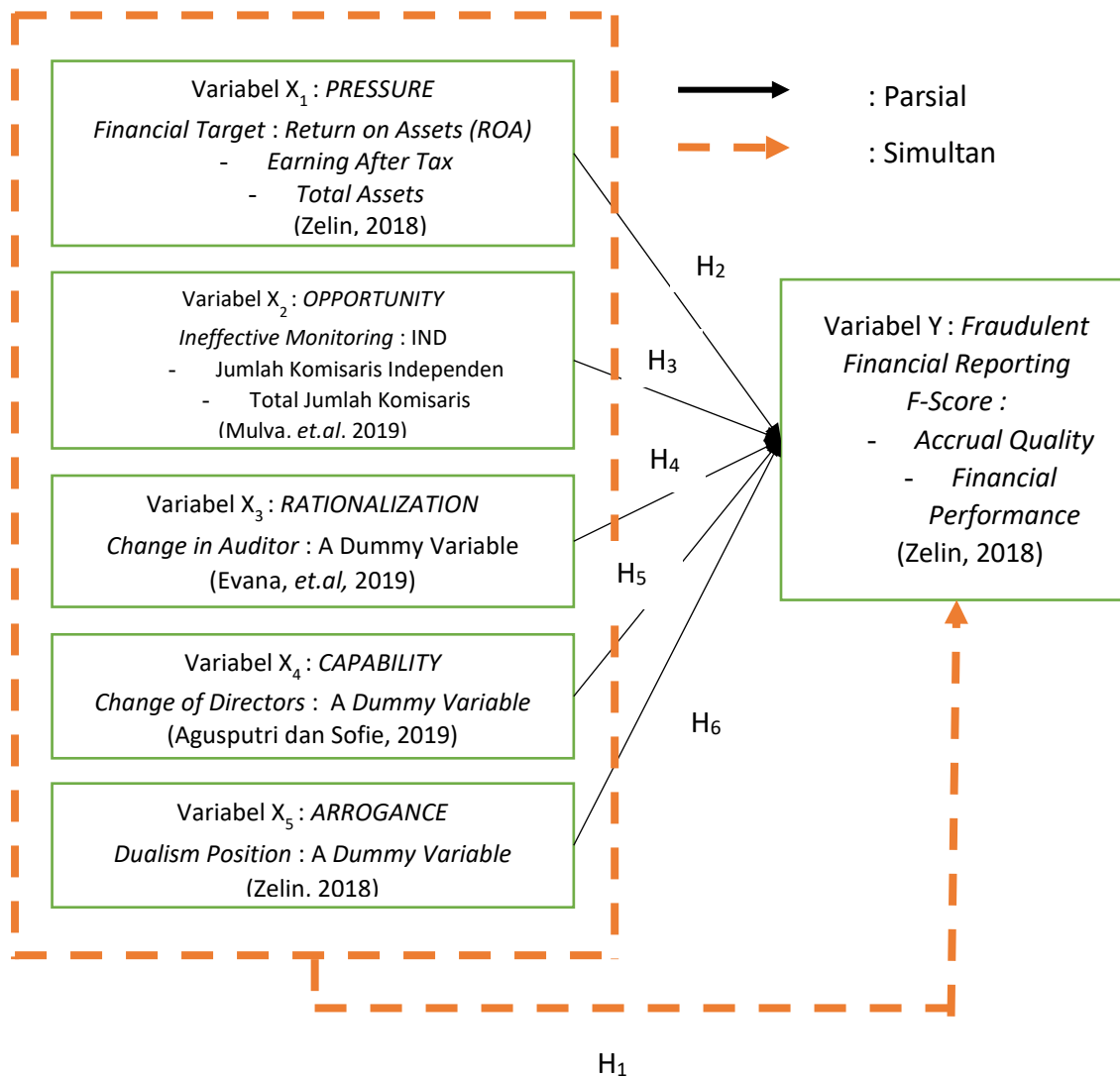


Figure 1. Conceptual framework

Result and Discussion

Statistical Analysis Description

Panel A : Total Sample

Tabel 1. Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
ROA	147	.00	.21	4.09	.0278	.02951
IND	147	.25	1.00	77.45	.5269	.15125
TAC	147	.01	.99	51.63	.3512	.25125
CDIR	147	0	1	27	.18	.389
DUALISM	147	0	1	51	.35	.478
FSCORE	147	.01	1.77	70.85	.4820	.33538
Valid N (listwise)	147					

Panel B : Sub Sample Fraud

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
ROA	12	.01	.21	.91	.0758	.06273
IND	12	.33	.67	6.27	.5225	.13692
TAC	12	.07	.99	6.32	.5267	.28024
CDIR	12	0	1	4	.33	.492
DUALISM	12	0	1	6	.50	.522
FSCORE	12	1.04	1.77	15.75	1.3125	.24091
Valid N (listwise)	12					

Panel C : Sub Sample Non Fraud

Tabel 3. Descriptive Statistics

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
ROA	135	.00	.08	3.18	.0236	.02002
IND	135	.25	1.00	71.18	.5273	.15292
TAC	135	.01	.95	45.31	.3356	.24358
CDIR	135	0	1	23	.17	.377
DUALISM	135	0	1	45	.33	.473
FSCORE	135	.01	.96	55.10	.4081	.22478
Valid N (listwise)	135					

Table 4. Number of Companies Allegedly Detected in Fraud and Non-Fraud

		FRAUD			
		Frequency	Percent	Valid Percent	Cummulative Percent
Valid	Fraud	12	8,16	8,16	8,16
	Non Fraud	135	91,84	91,84	100,0
	Total	147	100,0	100,0	

From the results of the F-Score calculation and descriptive analysis in the table above, it can be concluded that the number of sample companies indicated to commit fraud were 12 companies or 8.16%, while for companies that were not detected as committing fraud, there were 135 companies or 91.84 %.

Normality test

Table 5. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		147
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	.30776550
Most Extreme Differences	Absolute	.064
	Positive	.064
	Negative	-.038
Test Statistic		.064
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Based on the results of the Kolmogorov-Smirnov test above, the Asymp value is generated. Sig. (2-tailed) of 0.200. These results can be concluded that the residual data in this regression model is normally distributed because the value of Asymp.Sig. (2-tailed) above 0.05 and the regression model is suitable for further analysis.

Multicollinearity Test

Table 6. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error	Beta	t		Tolerance	VIF
1 (Constant)	.168	.124		1.356	.177		
ROA	4.303	.975	.379	4.413	.000	.812	1.232
IND	.377	.184	.170	2.047	.042	.866	1.155
TAC	-.114	.116	-.085	-.980	.329	.786	1.272
CDIR	.037	.067	.042	.549	.584	.997	1.003
DUALISM	.083	.059	.119	1.419	.158	.855	1.170

a. Dependent Variable: FSCORE

From the research above, it can be concluded that all independent variables show a tolerance value > 0.10 and a VIF value < 10 . Thus, it can be stated that the independent variables used in the regression model of this study are free from multicollinearity, reliable and objective.

Heteroscedasticity Test

Table 7. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	Collinearity Statistics	
	B	Std. Error	Beta	t		Tolerance	VIF
1 (Constant)	-5.127	.890		-5.758	.000		
ROA	6.457	7.003	.083	.922	.358	.812	1.232
IND	1.056	1.323	.070	.799	.426	.866	1.155
TAC	1.577	.836	.173	1.887	.061	.786	1.272
CDIR	.769	.480	.130	1.603	.111	.997	1.003
DUALISM	-.334	.422	-.070	-.793	.429	.855	1.170

a. Dependent Variable: LNU2I

The results of the heteroscedasticity test above show that the significance value for all variables is more than 0.05, so it can be concluded that there is no heteroscedasticity symptom in the regression model.

Autocorrelation Test

In this study using the Cochrane-Orcutt test and the Durbin-Watson detection (DW Test). The complete autocorrelation test results can be seen in the following table:

Table 8. Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.403 ^a	.162	.132	.30087	1.994

a. Predictors: (Constant), Lag_X5, Lag_X4, Lag_X1, Lag_X2, Lag_X3
b. Dependent Variable: Lag_Y

It can be concluded that $dU < d < 4 - dU$ or $1.8012 < 1.994 < 2.1988$, so there is no autocorrelation in this test.

Model Feasibility Test (F Test)

Table 9. ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	2.593	5	.519	5.287	.000 ^b
Residual	13.829	141	.098		
Total	16.422	146			

a. Dependent Variable: FSCORE
b. Predictors: (Constant), DUALISM, CDIR, TAC, IND, ROA

The table above shows the results of simultaneous testing between the variables pressure (X1), opportunity (X2), rationalization (X3), capability (X4) and arrogance (X5) against fraudulent financial statements (Y). From the table, it is known that the significance value (Sig) is 0.000. Because the significance value of $0.000 < 0.05$ is in accordance with the basis for decision making in the F test, it can be concluded that the variables pressure (X1), opportunity (X2), rationalization (X3), capability (X4) and arrogance (X5) simultaneously have a significant effect. to financial statement fraud (Y) and the value of the regression fit.

Individual Parameter Test (t Test)

Table 10. Coefficients^a

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
1 (Constant)	.168		1.356	.177
ROA	4.303	.379	4.413	.000

IND	.377	.184	.170	2.047	.042
TAC	-.114	.116	-.085	-.980	.329
CDIR	.037	.067	.042	.549	.584
DUALISM	.083	.059	.119	1.419	.158

a. Dependent Variable: FSCORE

The pressure variable (X1) with the financial target proxy is known has a significance value (Sig) less than 0.05 ($0.00 < 0.05$). The opportunity variable (X2) with ineffective monitoring proxy is known has a significance value (Sig) less than 0.05 ($0.04 < 0.05$). This shows that the pressure and opportunity variables has significant effect on fraudulent financial reporting, the hypotheses (H2) and (H3) are accepted.

The rationalization variable (X3) with the total accruals proxy is known has no significance value (Sig) greater than 0.05 ($0.33 > 0.05$). The capability variable (X4) with change of directors proxy is known has no significance value (Sig) greater than 0.05 ($0.58 > 0.05$). The arrogance variable (X5) with dualism position is known has no significance value (Sig) greater than 0.05 ($0.16 > 0.05$). This shows that the variables of rationalization, capability and arrogance has no significant effect on fraudulent financial reporting, hypotheses (H3), (H4) and (H5) are rejected.

Multiple Correlation Coefficient

Table 11. Model Summary^b

Model	R		Std. Error		Change Statistics				
	R	Square	Adjusted R Square	of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.397 ^a	.158	.128	.31317	.158	5.287	5	141	.000

a. Predictors: (Constant), DUALISM, CDIR, TAC, IND, ROA
b. Dependent Variable: FSCORE

Based on table above, it is known that the value of sig. F Change is 0.000 less than 0.05 then there is a correlation between the independent variable and the dependent variable. Meanwhile, the value of the correlation coefficient (R) is 0.397, which means it shows a weak correlation.

Coefficient of Determination R²

Table 12. Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.397 ^a	.158	.128	.31317

a. Predictors: (Constant), DUALISM, CDIR, TAC, IND, ROA
b. Dependent Variable: FSCORE

From the table above, it can be seen that the Adjusted R2 value is 0.128 or 12.8%. These results indicate that the dependent variable of fraudulent financial reporting as proxied by F-score can be explained by the independent variables, namely the fraud pentagon proxied by financial targets, ineffective monitoring, total accruals, change of directors and dualism position of 12.8%. Meanwhile, 87.2% was influenced or explained by other variables that were not included in this research model.

Conclusion

This study aims to empirically prove the effect of Pressure, Opportunity, Rationalization, Capability, and Arrogance on financial statement fraud in financial sector companies listed on the Indonesia Stock Exchange in 2017-2019, so the following conclusions can be drawn: the variables of pressure, opportunity, rationalization, capability and arrogance simultaneously has a significant effect on fraudulent financial reporting. Pressure variable has a significant effect on fraudulent financial reporting. The opportunity variable has a significant effect on fraudulent financial reporting. The rationalization variable has no significant effect on fraudulent financial reporting. The capability variable has no significant effect on fraudulent financial reporting. The arrogance variable has no significant effect on fraudulent financial reporting.

Recommendation

Based on the description of the discussion and the conclusions obtained, the following are suggestions that researchers can convey for further research: for further research, it is expected to use a wider research object so that it can generalize the research results to all companies listed on the IDX. It is hoped that further researchers can add proxy variables from the fraud pentagon such as financial stability, external pressure, the influence of industry nature, auditor turnover, number of CEO photos displayed, institutional stock ownership, external auditor quality, and capital turnover so that the scope of the research variables becomes wider.

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