Research Paper

Determinants of Score Model on Fraudulent Financial Reporting With Beneish M-Score

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Abstract
Analyzing the impact of Diamond theory on false financial reporting is the aim of this study. A sampling of the 12 firms that were part of the Sri Kehati share list that was listed on the Indonesia Stock Exchange between 2017 and 2021 provided secondary data. To process data, Eviews is used. The test results showed that opportunity, director turnover, and ROA had little bearing on financial statement fraud. Financial statement fraud is impacted by rationalization in the meanwhile.
Keyword: Diamond Theory, Fraudulent Financial reporting, Beneish MScore

I. Introduction

Various financial scandals, especially fraudulent financial reports, have emerged during the two centuries of contemporary economics. Globally shocking bankruptcy situations happened as a result of stimulation pressure or the need for bonuses in the event that the company's financial goals were met. In order to avoid having debts show up in the financial statements, British Telecon cut their cash flow estimates in 2017. This led to losses and a decrease in tax payments. The case occurred at British Telecon in 2017. Other cases that are no less interesting are the Enron case, which hid debts of up to 1.2 million US$. In Indonesia there have been many cases of financial scandals, namely PT. Kimia Farma (2001) and Bank Lippo (2002). This shows that financial scandals occur in large companies, lack of supervision from the audit committee which causes financial report fraud to occur (Ibrahim et al, 2022).

According to Indarti & Siregara, (2018) prevention is very important by understanding the factors driving fraud. Cressey in 1953 first introduced the fraud triangle theory. The factors of the Triangel theory are stimulus, opportunity and rationalization. The factor that determines someone to commit fraud is stimulus or pressure. Then this theory was further developed by (Street & Hermanson, 2019), that someone commits fraud apart from pressure, opportunity and rationalization, there is another one, namely capability, someone will not commit fraud if they do not have the ability, this is supported by research from (Sabaruddin, 2022).

This study differs from previous studies in terms of the sample used; The researcher chose companies indexed by Sri Kehati shares which were listed on the IDX from 2017 to 2021. Researchers wanted to find out whether fraud had occurred in companies indexed by Sri Kehati shares. Meanwhile, companies indexed by Sri Kehati shares are companies that focus on sustainable and responsible investment. Usually companies indexed in this category are committed to environmentally and socially friendly business practices and have good corporate governance.

II. Literature Review and hypothesis

Fraud Diamond Theory

Wolfe & Hermanson, (2004) developed the Diamond fraud theory from the Triangle fraud theory. In The Diamond Fraud Theory, there are four components, namely pressure, opportunity, rationalization and capability. According to Bumi;Supriatiningsih, (2023) pressure factors influence the personal lives of perpetrators and encourage them to commit fraud. Skousen et al., (2009) said that pressure (both economic and non-economic) from within oneself or from others can cause fraudulent acts to occur. Opportunities are made

due to weak supervision. Fraud occurs because supervision and internal control are weak (Sabaruddin, 2022), (Widarti, 2015). Because they are used to cheating, they look for justifications for every action they take, known as rationalization. Fraud perpetrators consider their actions as their right rather than wrong (Hidayat et al., 2022), (Supriatiningsih et al., 2023).

Financial target

One proxy for stimulus or pressure is financial targets. According to SAS No. 99 (Anindya & Adhariani, 2019), (Tiffani et al., 2015), financial goals have risks because of the pressure placed on management to achieve them due to management or board of directors' decisions. Included in this pressure is the establishment of bonuses and incentives for management and employees if they meet the company's financial goals. Measuring a company's financial targets is closely related to its performance; One of the financial target measurements itself is Return on Assets (ROA). Basically, there is a positive correlation between the level of ROA targeted by a company and the possibility of management committing fraud (Utami et al., 2019), and there is a positive correlation between these two factors. . Based on the description above, the hypothesis formulation is made as follows:
H1 = Financial targets have a positive effect on fraudulent financial reporting

Change of director

Capability is a person's ability to commit fraud that can be predicted through changes in directors. The change of director may be According to Handoko, (2021) the company's attempt to remove the old director who is considered to have committed fraud. Changing directors requires time to adapt to a new job so it can reduce the effectiveness of company performance (Samukri et al., 2022). The opportunity to commit fraud is wide open during this adaptation period. Based on the description above, the hypothesis formulation is made as follows:
H2 = Changing auditors has a negative effect on fraudulent financial reporting

Nature of industry

The nature of industry is an ideal situation where a company has a large financial balance in certain matters based on estimates, such as uncollectible receivables and obsolete goods. The receivables change ratio increases financial statement fraud, according to research by (Summers & Sweeney, 1998) in (Supriatiningsih, 2023). Based on the description above, the hypothesis formulation is made as follows:
H2 = Nature of industry has a positive effect on fraudulent financial reporting

Rationalization

According to Vousinas, (2019) rationalization in the context of financial statement fraud refers to a mental process where fraudsters convince themselves that the fraudulent actions they commit are reasonable or can be justified. This is one of the psychological aspects that often encourages individuals or groups to commit fraud in a financial context (Suryandari & Pratama, 2021).
H4 = Rationalization berpengaruh positif terhadap fraudulent financial reporting

Figure 1 framework of thinking
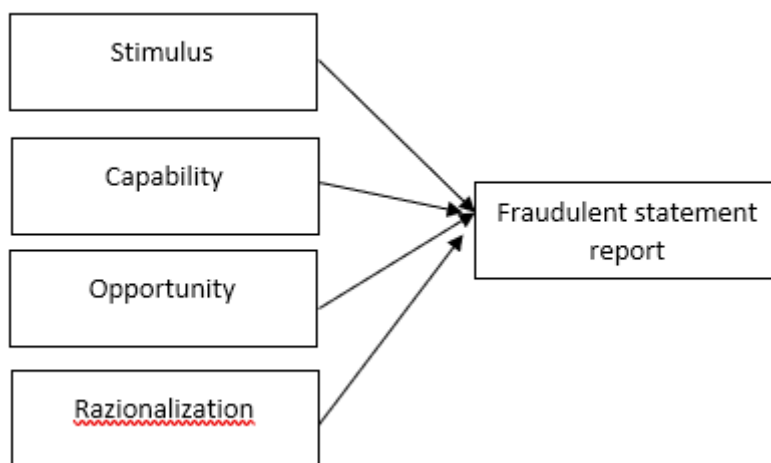
Source: Author's data processing

III. RESEARCH METHODS

The data used are financial reports of companies indexed by Sri Kehati shares and the Indonesian Stock Exchange for 2017-2021 which were obtained via the official website www.idx.co.id and the company's official website. There are 25 companies registered on www.idx.co.id for five consecutive years from 2017-2021. The number of companies that correspond to the research variables is 12 companies. The total company data used is 60 data.

Operational and measurement

Table 1. Operational and measurement

Variable	Indicator
Fraudulent Statement Report	Beneish M-Score
Financial Target	$Roa = \dfrac{Nett\ Profit}{Total\ Asset}$
Nature of Industri	$RECEIVABLE = \dfrac{Accounts\ receivable\ t}{Sales\ t} \dfrac{Accounts\ receivable\ t-1}{Sales\ t-1})$
Rationalization	$TATA = \dfrac{Net\ Income\ t - Operasional\ Cash\ Flow\ t}{Total\ Assets\ t}$
Change of Director	Dummy

Source: Author's data processing

DISCUSSION
Descriptive Statistical Test

Table 1. Results of descriptive statistical tests

	MSCORE	ROA	REV	TATA	DCHANGE
Mean	976,2323	0,360560	-0,051307	166.2225	0,476891
Median	-6.170000	0.090000	0.011000	-0,56001	1.000800
Maximum	45383.04	7.30000	0.730000	8815.760	1.000900
Minimum	-7.640000	0.00000	-5.23000	-1.05000	0.000000
Std. Dev	5576.652	1.243745	-5.23000	-1.05000	0.497234
Skewness	7.55575	6.223375	-7.158953	7.555724	-0.32295
Kurtosis	61.63644	30.42007	55.67490	61.55705	1.104313

Source: Author's data processing

Based on the results of descriptive statistical tests from table 1, it can be seen that there are 60 observations of data on each variable. This number comes from 12 sample companies and 5 annual reporting periods of companies indexed by Sri Kehati shares listed on the Indonesia Stock Exchange for 2017-2021.
Panel Data Regression Selection Method
Chow Test Model
The results of the chow test model can be seen in table 2 as follows:

Table 2. Chow test results

Effects test	Statistic	d.f	Prob
Cross-section F	15.32557	(23,101)	0.0000
Cross-Section Chi-aquare	211.9724	23	0.0000

Source: Output results from E-Views v.12

Based on the Eviews output results above, it is known that the cross section probability value F is 0.0000. With a cross-section probability value F smaller than 0.05, it can be concluded that the appropriate model based on the results of the Chow test is the fixed effect model.

Hausman Test

Tabl 3. Hausman test results

Test summary	Chi-Sq Statistic	Chi-Sq d.f.	Prob
Cross-section random	0.548414	4	0.6354

Source: Output results from E-Views v.12

Based on the Eviews output results above, it is known that the random cross section probability value is 0.6354. With the F cross section probability value being greater than 0.05, it is concluded that the appropriate model based on the Hausman test results is the random effect model.

Langrange Multiplier Test

Tablel 4. *Lagrange Multiplier Test Model Test Result*

	Cross-section
Breusch-Pagan	136.7892 (0.00000)

Source: Output results from E-Views v.12

It is known that the Breusch pagan cross section probability value is 0.0000 based on the aforementioned Eviews output data. Based on the outcomes of the Lagrange multiplier test, it is determined that the random effect model is the most appropriate model because the probability value of the Breusch pagan cross section is less than 0.05.

Panel Data Regression Model
Three methods can be used to perform panel data regression models: the Random Effect Model Test (REM), the Fixed Effect Model Test (FEM), and the Common Effect Model Test (CEM).
Test of the Random Effect Model (REM)

Table 6. R*andom effect model* test result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.51625	10.90684	1.352409	0.1966
ROA	-0,065323	0.425548	-0.17833	0.7756
REV	0.166077	0.954510	0.158442	0.7362
DChange	-15.62542	13.62684	-1.17532	0.2334
TATA	4.578326	0.007236	543.4974	0.0000
AdjustedRsquared	0.677902			

Source: Output results from E-Views v.12

Roa, Rev, Tata, and Dchange outcomes of the Random Effect Model Test (REM) on MSocre

-Thus, it can be said that there is no discernible relationship between the M-SCORE variable (With a t-statistical value of -0.178 and a Prob value (significance) of $0.7756 > 0.05$ for the ROA variable (x1), H1 is rejected. Thus, it can be said that there is no discernible relationship between the ROA variable (X1) and the M-SCORE variable (Z).
- With a t-statistical value of -1.17532 and a Prob value (significance) of $0.2334 < 0.05$ for the variable Change Director (x2), H2 is rejected. Thus, it can be said that the M-SCORE variable (Z) is significantly impacted by the Change Director variable (x2).
- With a t-statistic value of 0.158 and a Prob value (significance) of $0.7362 > 0.05$ for the variable REV (x3), H3 is rejectedZ) and the REV variable (x3).
- With a t-statistics value of 543.49 and a Prob value (significance) of $0.0000 < 0.05$ for the TATA variable (x4), H4 is acceptable. Thus, it can be said that the M-SCORE variable (Z) is significantly impacted by the TATA variable (x4).
- The ROA (x1), Dchange (x2) REV (x3), TATA (x4), and rationalization (x4) variables each contribute 67.79% to the M-SCORE (Z) variable, according to the Adjusted R-Square value of 0.888582.

IV.   DISCUSSION

The influence of financial targets on financial statement fraud

This research measures financial targets using Return on Assets (ROA). In the context of fraud theory, this is if management must achieve the financial targets set by the company, related to bonuses or incentives that will be received by management. This creates pressure for management to commit fraud by manipulating financial reports. Based on the results of empirical tests, the conclusion is drawn that financial targets have no effect on financial statement fraud. Companies indexed by Sri Kehati shares are companies that apply personal integrity, moral values and strict internal supervision so that there is no pressure on management to carry out engineering so that the financial reports look good. This is in line with research results from (Handoko, 2021) (Yulianti et al., 2019),(Permata Sari & Kurniawan Nugroho, 2020). In contrast to research results from (Akbar, 2017) that financial targets have an influence on financial report fraud.

The effect of Change of Director on financial statement fraud

The study's findings support the notion that there is no connection between financial statement fraud and changing directors. This is in line with research results from (Drice & Nuryani, 2022) (Purwaningtyas & Ayem, 2021), (Ijudien, 2018), in contrast to research results from (Yanti & Munari, 2021). states that changing directors has an effect on financial statement fraud. This is done under the supervision of the board of commissioners, who are representatives of the shareholders. Directors who fail will immediately be replaced with better ones.

The influence of the nature of industry on financial statement fraud.

The study's findings lead to the conclusion that financial report fraud is unaffected by the nature of the industry. As a result, the company's subjective evaluation of inventory accounts—the quantity of which is based on the assessments of individual managers—cannot be used to suggest that businesses in a certain industry may be engaging in financial report fraud. This is consistent with the findings of the study from (Putra, 2019) (Dan et al., 2017). The results differ from research from (Khamainy et al., 2022) that the nature of the industry influences financial report fraud. The large number of trade receivables a company has will of course reduce the amount of cash that the company can use for its operational activities. Limited cash can be an incentive for management to manipulate financial reports

The influence of rationalization on financial statement fraud.

According to research results, rationalization has an effect on financial report fraud. Rationalization often involves moral justification where perpetrators convince themselves that the fraudulent actions they commit are for good purposes or for the greater good. There was pressure from outside which caused them to argue that fraud was carried out to save the company so that investors would believe that the company was in good condition. This is in line with research from (Dewinta Agustin et al., 2022) (Erma Setiawati; Ratih Mar Baningrum, 2018). Different research results from (Lastanti et al., 2022) show that rationalization has no effect on financial report fraud.

V.   Conclusion

Based on the results of research conducted on companies indexed by Sri Kehati, the conclusion is drawn that ROA, nature of industry, and director turnover have no effect on financial statement fraud. Meanwhile, rationalization has an effect on financial report fraud.

Suggestion

It is hoped that further research will adapt the latest fraud theory because there are variables that are other causes of financial statement fraud and the research population is broader.

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