



The Impact of Financial Statement Fraud on Bankruptcy Banking Companies in Indonesia

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Abstract

Financial statement fraud is a form of fraud that is often carried out by companies which involves the deliberate presentation of financial information so that users of financial statements are deceived. The aim of this research is to determine the effect of financial statement fraud on bankruptcy in banking companies in Indonesia, especially the People's Economic Bank. The research uses data originating from People's Economic Bank publication reports published on the official Financial Services Authorization website. The data used in this research is secondary data consisting of financial reports from 30 BPRs that are still active and financial reports from 30 BPRs that have gone bankrupt. The analysis was carried out using the different test analysis method using SPSS 23. The results of this research indicate that financial statement fraud has no influence on bankruptcy.

Keywords: Financial Statement Fraud on Bankruptcy

1. INTRODUCTION

The number of failed banks in the banking industry of the Republic of Indonesia has increased (Aprilia, 2023). In the last 5 (five) years, dozens of banks have experienced bankruptcy (Burhan, 2023). Bankruptcy is a condition where a company is unable to pay its debts (Bandi et al., 2023; Kinanti et al., 2023; Setyabudi, 2023). This condition is due to the company's financial condition being insufficient to carry out its operational activities (Sarwanto et al., 2023). Bank bankruptcy occurred as a result of fraud (Burhan, 2023).

The Association of Certified Fraud Examiners (ACFE) defines fraud as fraudulent activity to achieve profit. Fraud becomes a crime when the intentional misrepresentation of the truth or concealment of material facts to induce another person to commit a detrimental act. The beginning of fraudulent activities can occur due to a weak internal control system,





because if the company implements the control system effectively and efficiently, it can reduce the occurrence of fraud (Baihaqie & Sofie, 2023). According to Cressey Donald (Cressey, 1953), there are 3 (three) factors that encourage fraud, namely pressure, opportunity and rationalization. Cressey's theory is known as the Fraud Triangle. In 2004, DT Wolfe and Hermanson added one more factor, namely capacity, thus creating the Fraud Diamond theory (Duffin & Djohan, 2022). Furthermore, in 2011, Jonathan Marks introduced the Pentagon Fraud theory, by changing the capacity factor to competency which has a similar meaning to capacity in Diamond Fraud and adding one more factor, namely arrogance (ego) (Lestari & Henny, 2019).

Vousinas Georgios (Vousinas, 2019) developed a new model known as Hexagon Fraud. Hexagon theory is an evolution of pentagon theory which is considered unable to perfect the factors that can influence its occurrence fraud (Achmad et al., 2022). The Association of Certified Fraud Examiners (ACFE), groups fraud into 3 (three) types, namely corruption, misuse of assets, and financial statement fraud (ACFE, 2022).

Financial statement fraud is a deviant act that is intentionally carried out on financial report data (Ratnasari & Rofi, 2020; Tanjaya & Kwarto, 2022) presented is not in accordance with accounting principles as a way to deceive and deceive financial report stakeholders (Nurdiana & Khusnah, 2023). Financial statement fraud includes manipulation, falsification, or alteration of accounting records or supporting documents prepared by deliberately omitting important events, transactions, and information from financial reports and applying incorrect accounting principles (Septriani & Handayani, 2018). Financial statement fraud can occur in all groups of companies, whether small, medium or large scale companies. The perpetrators are not only limited to people in the upper class, but have also been carried out by many lower level employees. There are several measuring tools or models for detecting fraudulent financial reports, including the F-Score Model developed by Dechow in 2011 which is the sum of accrual quality and financial performance (Ningsih & Syarieff, 2021); ; Beneish M-Score was developed by Messod Beneish in 1999, namely a financial report analysis technique applied to detect financial reports in the form of manipulation of earnings overstatement data (Widowati & Oktoriza, 2021). Research result (Hugo, 2019) show that the two models have proven to be effective and have a strong positive correlation with financial statement fraud. However, according to research (Fatihah, 2022), the Beneish M-Score Model is more effective in detecting financial statement fraud than the F-Score Model with an accuracy of 68.09% and 65.96. Therefore, in this study, researchers used the Beneish M-Score as a model for detecting financial statement fraud. According to Daniri and Simatupang in research (Sekarwulan & Umar, 2021), it is suspected that fraudulent financial reports can cause financial distress.





Financial distress is a condition where a company's finances can decline resulting in bankruptcy (Annafi & Yudowati, 2021; Mahaningrum & Merkusiwati, 2020; Sriyono & Wijayanti, 2023). A company is in a state of financial distress when the company is facing an inability to pay its maturing debts (Qintharah, 2020; Safiq & Seles, 2019). Company financial distress includes 4 (four) general terms, namely 1) failure, 2) insolvency, 3) bankruptcy, and 4) failure to pay (Putranto, 2023). Failure is when the rate of return on an investment is lower than the return on a comparable investment, insolvency is the company's inability to complete its current obligations, bankruptcy indicates that the company is in financial difficulties which requires a legal statement, and default is a condition where the company violates a debt or loan agreement (Habib et al., 2020).

The practice of fraudulent financial reporting and conditions of financial distress that pose a risk of bankruptcy are prone to occur in all groups of companies. Both of these things are a significant problem that is certainly avoided by companies. Therefore, many companies try hard to avoid situations of fraudulent financial statements and financial distress. This is a very interesting topic for researchers. Like previous research on financial statement fraud detection and Bankruptcy predictions carried out by (Diana & Hidayat, 2023; Dinasmara & Adiwibowo, 2020) for manufacturing companies and (Marbun, 2022) for insurance companies show that there are several companies that are indicated to have committed financial report fraud and have entered the gray zone. However, the results of previous research are still inconsistent and especially do not provide conclusions about the relationship between fraudulent financial statements and financial distress. So it can be concluded that research that explores the influence of fraudulent financial reports on financial distress is still relatively minimal.

Based on the explanation above, researchers are interested in examining the effect of fraudulent financial statements on financial distress, where financial distress is a proxy for determining the level of bankruptcy. This research aims to examine the effect of financial statement fraud on bankruptcy that occurred at the People's Economic Bank. This research contributes to the prediction of banking bankruptcy due to fraudulent financial statements. On the other hand, company management can also take steps to anticipate bankruptcy if financial statement fraud occurs. Furthermore, it is hoped that this research can be used as a reference to help researchers, students or lecturers as a reference for further research.

2. LITERATURE REVIEW

2.1 Agency Theory

In 1976, Jensen and Meckling introduced their theory, known as agency theory. Agency theory explains the relationship between shareholders who are principals who give





authority to management as agents who control the company. The relationship between shareholders and management is called agency relationship. Responsibilities between shareholders and agents are different. Shareholders are people who invest capital and guarantee agents to manage company assets, while agents are people who carry out business and operational activities to manage company assets that have been approved by shareholders (Rahmawati & Utami, 2023). Agency theory assumes that each individual prioritizes his or her own interests, thus causing a conflict of interest between shareholders and agents. This conflict occurs because of conflicting goals between shareholders and agents. Shareholders assess the agent's performance based on the profits generated by the company, while the agent tries to fulfill the principal's goals by maximizing company profits in order to obtain large compensation (Kardhianti & Srimindarti, 2022). One way for management to improve performance is by earnings management (Ibrani E. Y. et al., 2019).

Earnings management is the deliberate act of preparing financial reports and the presentation process for personal interests to increase, decrease, or equalize profits in financial reports which causes changes in the company's economic performance as reported by the company's internal parties (Renaldo et al., 2022). The practice of earnings management is an attempt by company managers to intervene or influence information in financial reports with the aim of deceiving shareholders who want to know the performance and condition of the company (Sulistyanto, 2018). According to Yahaya in research (Rahmawati & Utami, 2023), earnings management is a management practice intended to manipulate reported profits, by utilizing accounting policies certain activities, delaying or accelerating cost or income transactions, and implementing other strategies to increase profits in the short term. The act of intervening and deceiving shareholders by manipulating profits is a form of financial statement fraud.

2.2 Financial Statement Fraud

Fraud is a crime that is against the law and is intentional to gain personal or group benefit (Dinasmara & Adiwibowo, 2020). Fraud is a wrong action that is intentionally carried out and financial reports are prepared with misstatements so that it will influence the wrong decision-making process (Fadhilah et al., 2023). Fraud is divided into three categories, namely asset misappropriation, corruption, and financial statement fraud.

According to the Association of Certified Fraud Examiners (ACFE, 2022), financial statement fraud is a scheme in which an employee intentionally causes an organization's financial statements to contain materially incorrect or incomplete information, such as by reporting fictitious income, understating reported expenses, or inflating financial reported assets. Financial statement fraud can be carried out for various motivations which will





provide benefits to certain parties and will harm other parties (Natalia & Kuang, 2023). Financial statement fraud aims to cover up the true financial condition and will provide an advantage for the party committing the fraud.

Wicaksono in study (Kardhianti & Srimindarti, 2022) explains that financial statement fraud includes the following schemes: first, falsification, alteration, or manipulation of material financial records, supporting documents, or business transactions. Second, deliberate omission of events, transactions, accounts, or other important information. Third, intentional errors in the use of accounting principles, policies and procedures used to measure, recognize, report and disclose economic events.

2.3 Detection of Financial Statement Fraud

Financial statement fraud can be a challenge and difficult to detect. Some factors that make it difficult involve the effort involved in hiding fraudulent acts, the complexity of fraudulent transactions, and the creativity in manipulating data. In addition, fraud perpetrators often have in-depth knowledge of internal systems and audit procedures, making financial statement fraud difficult to detect.

However, thanks to the results of research conducted by previous researchers, assumptions about the formulas or equations that are used have emerged methods for detecting fraudulent financial statements. Researchers develop statistical models and in-depth data analysis. There are several models for detecting financial statement fraud, one of which is the Beneish M-Score Model. The Beneish M-Score model is the most well-known model currently for detecting fraudulent financial statements. This model uses statistical analysis of the company's financial ratios.

There are 8 (eight) ratios used in the Beneish M-Score model, including: Days Sales in Receivable (DSRI), namely the ratio of receivables in the current year to the previous year. Gross Margin Index (GMI) is a ratio that measures level company profitability by comparing the gross profit margin in the previous year with the current year. Asset Quality Index (AQI) is a ratio that compares the risk of assets in the current year with the previous year. Sales Growth Index (SGI) is a ratio that compares current year's sales to previous year's sales. Depreciation Index (DEPI) is a ratio that compares depreciation expenses on fixed assets in the previous year with the current year. Sales and General Administration Expenses Index (SGAI) is a ratio that compares general sales and administration costs to sales in the current year with the previous year. Leverage Index (LVGI) is a ratio that compares total debt with total assets in the current year with the previous year. Total Accrual (TATA) is a ratio that describes profits or accounting profits that are not obtained from operational cash flow.





2.4 Bankruptcy

Bankruptcy is a situation that indicates the condition of a company that is experiencing insufficient funds to carry out activities and is unable to pay off its obligations (Melia et al., 2023). Bankruptcy is a situation that is avoided by all business entities because this will only cause losses for the parties involved (Fitri & Khomsiyah, 2023). The initial symptoms of bankruptcy are usually characterized by financial distress (Fatmawati et al., 2023). Bankruptcy itself is often identified with the term financial distress.

Financial distress is a situation where a company is in a weakened financial condition (Kristyaningsih et al., 2021). According to research (Sriyono & Wijayanti, 2023), financial distress is defined as a phase of decline in a company's financial condition and if this condition is not paid attention to and continues continuously it will result in company bankruptcy. There are several models used to predict financial distress.

2.5 The Effect of Fraudulent Financial Statement on Bankruptcy

Shareholders and management have their own interests, which often do not have the same interests, giving rise to conflicts of interest. Conflicts of interest can encourage management to carry out earnings management practices so that financial performance appears to have improved. This can include manipulation of financial reports, such as by delaying the recognition of costs and revenues, thereby providing an inaccurate picture of the company's financial health. Earnings management practices can indicate that financial reports are not presented correctly or do not comply with accounting rules, which is a form of financial statement fraud. Financial statement fraud can have an impact on many things, one of which can cause bankruptcy or financial distress, as stated by (Dinasmara & Adiwibowo, 2020) that there are many cases of financial statement fraud which cause companies that manipulate financial reports to go bankrupt. Research results (Selanda & Hasanah, 2021) show that there is a relationship between fraudulent financial reports and company bankruptcy. Based on this statement, a hypothesis is built, namely:

Ha: Fraudulent financial statements affect bankruptcy.

3. RESEARCH METHODS

This research uses associative research with a quantitative approach. Associative research is a research problem formulation that aims to ask about the relationship between two or more variables. This research uses quantitative data obtained from secondary data sources. The data used in this research consists of financial reports from 30 People's Economic Banks (BPR) that are still active and financial reports from 30 People's Economic



Banks (BPR) that have gone bankrupt which are published on the Financial Services Authorization site, namely <https://cfs.ojk.go.id>.

The sampling technique is to use a random sampling technique namely a technique for selecting samples from a population that is carried out randomly without paying attention to the strata in the population. The data collection technique is documentation in the form of financial reports that have been published on the Financial Services Authorization website. The independent variables in this study use the Beneish M-Score ratios which consist of 8 ratios, except for TATA because one of the data for calculating TATA is not published by the Financial Services Authority. The data analysis technique used is the difference test analysis technique. The research data was tested using statistical testing using SPSS 25. The framework of this research is explained in the image below.

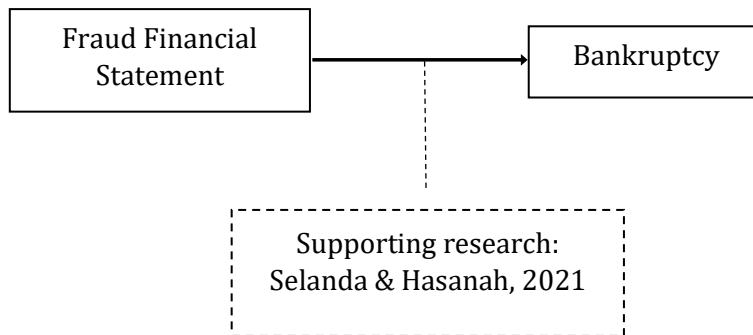


Figure 1. Research framework

4. RESULTS

This research is intended to test whether there is an influence of financial statement fraud on bankruptcy. This test was carried out using data from calculations of predictions of fraudulent financial statements, namely using the Beneish M-Score approach by calculating 7 of the 8 financial ratios for each company. Data from 30 non-bankrupt companies and 30 bankrupt companies with a total of 300 observation samples produces predictions of fraudulent financial statements for each company. This research uses non-parametric Independent T-test analysis, namely the Kruskal Wallis test.

From the results of calculations using the Beneish M-Score, it shows that of the 150 samples of "Not Bankrupt" companies, there are companies that fall into the category of indications of the possibility of committing financial statement fraud as many as 19 based on DSRI, 47 based on GMI, 62 based on AQI, 13 based on SGI, 30 based on DEPI, 78 based on SGAI, and 17 based on LVGI. Meanwhile, of the 150 samples of companies that are

"Bankrupt", there are 13 companies that fall into the category of indications of possibly committing financial statement fraud based on DSRI, 44 based on GMI, 59 based on AQI, 13 based on SGI, 28 based on DEPI, 80 based on SGAI, and 32 based on LVGI.

Before carrying out a hypothesis test, a normality test is carried out first to find out the right tool for the different test to be carried out. The following normality test results are shown in Table 1.

**Table 1. Normality Test Results
Tests of Normality**

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
DSRI_No Bankrupt	,374	150	,000	,184	150	,000
DSRI_Bankrupt	,373	150	,000	,175	150	,000
GMI_No Bankrupt	,340	150	,000	,379	150	,000
GMI_Bankrupt	,445	150	,000	,117	150	,000
AQI_No Bankrupt	,382	150	,000	,335	150	,000
AQI_Bankrupt	,386	150	,000	,210	150	,000
SGI_No Bankrupt	,243	150	,000	,622	150	,000
SGI_Bankrupt	,370	150	,000	,169	150	,000
DEPI_No Bankrupt	,297	150	,000	,336	150	,000
DEPI_Bankrupt	,314	150	,000	,494	150	,000
SGAI_No Bankrupt	,224	150	,000	,598	150	,000
SGAI_Bankrupt	,245	150	,000	,578	150	,000
LVGI_No Bankrupt	,435	150	,000	,137	150	,000
LVGI_Bankrupt	,346	150	,000	,256	150	,000

a. Lilliefors Significance Correction

The results of the Normality Test in Table 1 show that the overall ratio value has a significance value of 0.000, which means the value is smaller than the alpha value of 0.05 (0.00 < 0.05). This means that the data for all ratios is not normally distributed. Therefore, next each ratio will be tested using the Independent T-Test difference test with the Kruskal Wallis test to test whether there is an effect. The results of the Kruskal Wallis test can be seen in the table below:

**Tabel 2. Kruskal Wallis Test
Test Statistics ^{a,b}**

	DSRI	GMI	AQI	SGI	DEPI	SGAI	LPGI
Chi-Square	,023	,030	,042	,688	2,579	,601	2,696
Df	1	1	1	1	1	1	1
Asymp . Mr	,879	,862	,838	,407	,108	,438	,101

a. Kruskal Wallis Test

b. Grouping Variable: Bank

From table 2, it can be seen from the output of "test statistics" from the Kruskal Wallis test that the value of Asymp. Sig for DSRI ratio is 0.879 > 0.05, GMI ratio is 0.862 > 0.05, AQI ratio is 0.838 > 0.05, SGI ratio is 0.407 > 0.05, DEPI ratio is 0.108 > 0.05, SGAI ratio is 0.438 > 0.05, and the LVGI ratio is 0.101 > 0.05. Asymp significance value is greater than 0.05, which means the value "Ha is rejected" means that there is no influence of financial statement fraud on bankruptcy.

5. DISCUSSION

The hypothesis in this research is that financial statement fraud has an effect on bankruptcy. However, the results of the analysis show that financial statement fraud has no influence on bankruptcy seen from the Asymp value. Significance is more than 0.05. Thus the alternative hypothesis (Ha) which states that financial statement fraud has an effect on bankruptcy is not accepted or rejected. From these results, financial statement fraud has no effect on bankruptcy in banking companies in Indonesia.

Although financial statement fraud is a serious problem in the business world and can give a false picture of a company's financial health, this research shows that it does not mean the company will go bankrupt. Many companies commit financial statement fraud by manipulating their financial reports for certain purposes, for example to attract investors, meet financial targets, or to avoid regulatory penalties. However, it is important to note that although financial statement fraud does not directly lead to bankruptcy, it is still an illegal act that can have consequences for the company.

6. CONCLUSION

This research was conducted to determine whether financial statement fraud has an influence on bankruptcy, using the Beneish M-Score method as a predictor of financial statement fraud. This research uses a total of 300 samples of company financial reports.



Based on the results of research that has been carried out regarding the impact of fraudulent financial statements on the bankruptcy of banking companies in Indonesia, it can be concluded that fraudulent financial statements do not have a significant effect on bankruptcy. In other words, even if you commit financial report fraud, it doesn't necessarily mean that the company will go bankrupt.

This research is limited in the number of samples used and the period is limited to only 5 years. This research is only limited to applying analysis using the Beneish M-Score, but does not carry out an in-depth investigation into the actual condition of the company.

It is recommended for future researchers to expand the sample and extend the research period to include company financial reports, or to use other methods of detecting financial statement fraud or bankruptcy to prove whether or not there is an influence of financial statement fraud on company bankruptcy.

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Appendix

The following ratios are designed to relate to fraudulent financial statements (Beneish, 1999), are as follows:

Days Sales Receivable Index (DSRI), used to see the balance size of receivables and income in two consecutive periods. If there is an increase in DSRI, it could be an indication of income manipulation.

$$DSRI = \frac{\text{Accounts Receivable}(t) / \text{Sales}(t)}{\text{Accounts Receivable}(t - 1) / \text{Sales}(t - 1)}$$

Gross Margin Index (GMI), is an index that measures the level of company profitability. If the gross margin worsens it will have a negative impact on the company's future. Companies that have poor prospects are more likely to engage in earnings manipulation.

$$GMI = \frac{\text{Gross Profit}(t - 1) / \text{Sales}(t - 1)}{\text{Gross Profit}(t) / \text{Sales}(t)}$$

Asset Quality Index (AQI), used to measure the proportion of total assets to future profits that lack certainty. If $AQI > 1$, then this indicates that the quality of the assets owned by the company is decreasing.

$$AQI = \frac{1 - ((\text{Current Assets}(t) + \text{Fixed Assets}(t) / \text{Total Assets}(t))}{1 - ((\text{Current Assets}(t - 1) + \text{Fixed Assets}(t - 1) / \text{Total Assets}(t - 1))}}$$

Sales Growth Index (SGI), is an index of sales. If $SGI > 1$ then this indicates an increase in sales. According to research (Marjono et al., 2019), companies that experience sales growth are more likely to manipulate revenue.

$$SGI = \frac{\text{Sales}(t)}{\text{Sales}(t - 1)}$$





Depreciation Index (DEPI), is a depreciation expense index, namely the comparison of depreciation expenses on fixed assets before depreciation between periods. If the DEPI value is > 1 , then there is a signal of overstatement of profits. An index of more than 1 means there is a decrease in the depreciation expense for fixed assets, while a decrease in this ratio indicates an increase in the depreciation expense for fixed assets.

$$DEPI = \frac{\text{Depreciation}(t - 1) / \text{Depreciation}(t - 1) + \text{Fixed Assets}(t - 1)}{\text{Depreciation}(t) / \text{Depreciation}(t) + \text{Fixed Assets}(t)}$$

Sales General and Administration Expenses Index (SGAI), is an index that measures the comparison between sales, administration and general expenses on sales between two periods. If the SGAI value is smaller than 1, then there is a decrease in the company's operational expenses or an increase in sales.

$$SGAI = \frac{\text{SGAI}(t) / \text{Sales}(t)}{\text{SGAI}(t - 1) / \text{Sales}(t - 1)}$$

Leverage Index (LVGI), is a debt index which is a ratio to measure the comparison between total debt and total assets in the current year and the previous year. If the LVGI value is > 1 , then there is an increase in the composition of debt over assets which has the potential for overstatement of profits because the company has an obligation to fulfill its obligations.

$$LVGI = \frac{\text{Total Liabilities}(t) / \text{Total Assets}(t)}{\text{Total Liabilities}(t - 1) / \text{Total Assets}(t - 1)}$$

Total Accruals to Total Assets (TATA), is a total index that measures the ratio of total accruals to total assets. Total accruals are a component that forms the amount of accrued profit. A high TATA value signals an overstatement of profits.

$$TATA = \frac{\text{Operating Profit}(t) - \text{Cash Flow from Operating Activities}(t)}{\text{Total Assets}(t)}$$

