

Detection of Financial Statement Fraud by Using the Beneish Ratio Index in Health and Pharmaceutical Sector Companies Listed on the Indonesia Stock Exchange (IDX) in 2020 – 2022

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ABSTRACT

The aim of this research is to determine the number of health and pharmaceutical sector companies listed on the Indonesia Stock Exchange which are classified as manipulator, non manipulator, and grey company by using the method Beneish Ratio Index. The object of this research is health and pharmaceutical sector companies listed on the Indonesia Stock Exchange from 2020 to 2022. The sampling technique used purposive sampling where the sample is determined based on certain criteria determined by the author. The data analysis technique used is quantitative descriptive analysis using Beneish Ratio Index. The variables in this research are Days Sales In Receivable Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), Sales Growth Index (SGI), and Total Accrual To Total Assets Index (TATA). The results of this research indicate that there are no companies in the health and pharmaceutical sectors listed on the Indonesia Stock Exchange in 2020 that are classified as manipulator, in 2021 there will be 2 (two) companies, and in 2022 there will be 1 (one) company classified as manipulator. Then companies that are classified as non manipulator in 2020 there will be 14 (fourteen) companies, in 2021 there will be 14 (fourteen) companies, and in 2022 there will be 12 (twelve) companies. Furthermore, companies that are classified as grey company in 2020 there will be 5 (five) companies, in 2021 there will be 3 (three) companies, and in 2022 there will be 6 (six) companies.

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INTRODUCTION

Financial statements are a reflection of information about the position and financial performance of a company or entity. For an entity, financial statements provide management with an overview of financial and operational performance in a certain period (Afifah & Dewi, 2022; Nurjanah & Dewi, 2023; Sudradjat, 2023). Company Performance is an important thing that needs to be considered by every company. In this case, the good condition or not of a company can be seen from the company's performance condition by analyzing the company's financial statements and then compared to the previous year (Alcander & Nuraini, 2022; Nuraini & Andrew, 2023; Setiawan & Putri, 2023). Management of a company prepares and presents a financial statement as a form of

responsibility for stakeholders, both internal and external. With financial statements, stakeholders can decide on the right policies and strategic steps (Roup & Purwanto, 2022; Suwarno et al., 2023). If the preparation and presentation of financial statements contain material misstatements, for example, due to fraud; (fraud), then the financial statements will lose their accountability, reliability, and relevance.

According to the Indonesian Institute of Public Accountants, fraud is a series of irregularities committed intentionally either by one or more individuals in management or a party responsible for governance, employees, and third parties that involve the use of deception to obtain an unfair advantage, harm other parties, and violate the law. Financial statement fraud is a form of material misstatement in financial statements committed by management). (Updated Feb 2020)

Financial statements, especially in public companies, must be audited by auditors, where auditors are third parties who can find out whether when presenting financial statements management will look fair or not in their presentation and free from material misstatements (Hidayatulloh & Amyar, 2022) (Dancing & Tartilla, 2022). However, even though it has been audited, in Indonesia there are still many cases of financial statement fraud committed by the Company. For example, in the default case of PT WAL which engineered the preparation and presentation of the company's financial statements, the publication of financial statements is not by the company's actual performance. As a result of this action, the Financial Services Authority revoked PT WAL's license (CIU) on December 5, 2022. Then on February 24, 2023, OJK canceled the registered certificate of Public Accounting Firm (KAP) Kosasih Nurdiyaman, Tjahjo and Rekan (members of Crowe Howarth International) who carried out audit services on PT WAL's annual financial statements. (CNBC Indonesia, 2023). In addition, there has been a case in a health and pharmaceutical sector company, PT PT Indofarma Tbk (INAF) that violated laws and regulations in the capital market, especially related to the presentation of financial statements. From the results of the study, Bapepam found evidence that among others, the value of Goods in Process was valued higher than the value it should be (overstated) in the presentation of the value of inventory in process in the 2001 financial year amounted to Rp 28.87 billion. As a result, the Cost of Goods Sold was understated and net income was overstated with the same value.

Research on the detection of financial statement fraud using the Beneish Ratio Index has been widely used with different results, such as those conducted by companies that conducted initial public offerings (IPOs) on the Indonesia Stock Exchange in 2018. also researched the Use of Latifatussolikah & Ari Pertiwi, 2020 Murdihardjo dkk, (2021) the Beneish Ratio Method in Detecting Financial Statement Fraud in Food and Beverage Subsector Companies in 2015 – 2019. Based on the results of previous studies, the results of several studies show different results so researchers want to re-examine. However, this research was conducted on health and pharmaceutical sector companies listed on the Indonesia Stock Exchange (IDX) using different periods, namely 2020 to 2022.

Researchers will conduct research on detecting financial statement fraud using the Beneish Ratio Index on Health and Pharmaceutical Sector Companies listed on the Indonesia Stock Exchange (IDX) in 2020 – 2022. The reason for using the object of health and pharmaceutical sector companies is because this sector is a sector that has the largest market in Indonesia. With the existence of government regulations that require Indonesians to register to become members of BPJS (Social Security Organizing Agency), all Indonesians are given convenience in handling their health by visiting health facilities for medical purposes, so that the need for drug production and consumption becomes increasing. This condition makes pharmaceutical companies one of the right choices for investors to invest (Dewi et al., 2021). Therefore, this sector must be able to maintain this success by maintaining the quality of financial reporting without fraudulent reporting.

The formulation and purpose of this study is to find out how many health and pharmaceutical sector companies listed on the Indonesia Stock Exchange during 2020 – 2022 are classified as manipulators, non-manipulators, and gray companies. It is hoped that the results of this research can add insight and as a means of developing knowledge about the tools used in detecting early financial statement fraud using the Beneish Ratio Index method.

THEORETICAL FOUNDATIONS AND HYPOTHESIS DEVELOPMENT

Financial Statements

According to accounting standard (PSAK) No. 1 (PSAK 2020) Financial statements, namely a structured presentation of the financial position and performance of an entity. Annual accounting statements are presented in several forms: statements of financial position, income statements and other comprehensive, statements of changes in equity, statements of cash flows, and notes to financial statements.

Based on the Financial Services Authority Regulation Number 29 / POJK.04 / 2016 concerning the annual report of issuers or public companies states that issuers or public companies are required to submit an annual report to the Financial Services Authority (OJK) no later than the end of the fourth month or 120 days after the financial year ends. The annual report must also be submitted to the Financial Services Authority (OJK) on the same date as the Annual Report is available to shareholders. (Sulistiawati & Amyar, 2022)

Definition of Cheating

Cheating (fraud) according to the Association of Certified Fraud Examiners (ACFE, 2016) The journals cited are divided into three (three) types, namely: (Purwanti, 2018)

1. Asset Misappropriation

Namely misuse in the form of cash and non-cash, whether used for personal interests or results obtained without permission from the company. The grouping of fraud (fraud) is divided into two types of assets, namely:

- a) Cash Misuse
- b) Non-Cash Abuse

2. Fraudulent Financial Reporting

The act of fabricating financial statements for personal use by manipulating financial conditions.

3. Correpi (Corruption)

Corruption is defined as activities carried out for personal gain with abuse of power that can occur in the private sector or companies or the government sector (public).

Financial Statement Fraud

Financial statement fraud is a form of material misstatement in financial statements committed by management. According to Gravit (2006) financial statement fraud, namely making changes, falsification, or manipulation of records and other supporting that is material. Although there is already an accounting information system and internal control, control cannot eliminate all possible errors that occur, but good internal control will minimize errors during these operations (Febrianto & Febrina, 2020) (Purwanti, 2018) (Khairunnisa et al., 2022) (Nababan & Muktiadji, 2022) (Muan & Prakoso, 2022). But still, there are always fraud loopholes in financial statements. Intentional negligence of important information such as transactions, company accounts, and others and negligence in presenting or disclosing policies on financial value and other accounting principles. Intentional errors in procedures and policies are used to measure financial statements, economic events, and business transactions. Financial statement fraud can adversely affect stakeholders.

Financial Statement Fraud Detection

Theory Planned Behavior (Planned Behavior Theory) is one of the theories that underlie financial statement fraud where this theory states that the relationship between attitudes, subjective norms, and perceptions will affect the behavioral intention of individuals to perform a person's or individual's actions. (Dewi et al., 2024) Perform identification of fraudulent financial reporting It's not easy. Because fraudsters are managerial parties, who can hide their actions from users of financial statements. To avoid this, companies must detect their financial statements.

Beneish Ratio Index

In 1999 Messod Daniel Beneish discovered Beneish Ratio Index. Beneish devised a method that can detect fraud in financial statements due to profit manipulation, a problem of great interest to analysts, regulators, and researchers. Beneish analyzed his research of quantitative differences between companies that commit fraud and those that do not. Beneish uses data from corporate financial statements to determine financial ratios that correlate with financial statement fraud and to determine the circumstances that motivated companies to commit fraud. If there is a significant increase in expenses between the year studied and the previous year, there are indications of profit manipulation, as well as if there is a significant decrease in company expenses. Beneish Ratio Index Those used to detect manipulation in the financial statements include:

Days Sales In Receivables Index (DSRI)

DSRI is a ratio to compare the number of sales days in receivables in the first year of manipulation (year t) against the measurement of the previous year (year t-1).

$$DSRI = \frac{Piutang_t / Penjualan_t}{Piutang_{t-1} / Penjualan_{t-1}}$$

Gross Margin Index (GMI)

GMI is a ratio used to measure the sales margin of the previous year (t-1) to the current year (t).

$$GMI = \frac{Laba\ kotor_{t-1} / Penjualan_{t-1}}{Laba\ kotor_t / Penjualan_t}$$

Asset Quality Index (AQI)

AQI is a measure of gross profit that indicates non-current assets are likely to provide benefits for the company in the future.

$$AQI = \frac{1 - \frac{Aktiva\ lancar_t + Aktiva\ tetap_t}{Total\ aktiva_t}}{1 - \frac{Aktiva\ lancar_{t-1} + Aktiva\ tetap_{t-1}}{Total\ aktiva_{t-1}}}$$

Sales Growth Index (SGI)

SGI is the ratio of activity size or revenue growth in one year (t) compared to the previous year (t-1).

$$SGI = \frac{Penjualan_{tahun\ berjalan}}{Penjualan_{tahun\ sebelumnya}}$$

Depreciation Index (DEPI)

DEPI is a ratio with a comparison calculation formula between *depreciation* expenses that exist for 2 (two) consecutive years.

$$DEPI = \frac{\frac{Depresiasi_{t-1}}{Depresiasi_{t-1} + Aktiva\ tetap_{t-1}}}{\frac{Depresiasi_t}{Depresiasi_t + Aktiva\ tetap_t}}$$

Sales, General and Administrative Expenses Index (SGAI)

SGAI is a ratio with a calculation formula by comparing the cost of sales, general expenses, and administrative costs to sales in one year (t) with the previous year (t-1).

$$SGAI = \frac{SGA_t / Penjualan_t}{SGA_{t-1} / Penjualan_{t-1}}$$

Leverage Index (LVGI)

The LVGI ratio compares the amount of debt to total assets in one year (t) and the previous year (t-1).

$$LVGI = \frac{Total\ kewajiban_t / Total\ aktiva_t}{Total\ kewajiban_{t-1} / Total\ aktiva_{t-1}}$$

Total Accruals to Total Assets (TATA)

TATA is a ratio calculated based on accounting profit/profit earned in addition to operating cash flow.

$$TATA = \frac{Laba\ usaha_t - Arus\ kas\ dari\ aktivitas\ operasional_t}{Total\ aktiva}$$

METHOD

The subjects used in this study are health and pharmaceutical sector companies listed on the Indonesia Stock Exchange in 2020-2022. This research was conducted on health and pharmaceutical sector companies listed on the Indonesia Stock Exchange through the official website of www.idx.co.id. The method used in this study is the descriptive method, which is a method carried out by looking for data that describes the company's financial performance and then comparing it between the results of research in certain periods with other periods.

The data used is secondary data obtained from the financial statements of Health and Pharmaceutical sector companies listed on the Indonesia Stock Exchange (IDX) for 2020 – 2022. From 30 populations then through purposive sampling narrowed to 19 sample companies. Data analysis was carried out using five types of financial ratios contained in the Beneish Ratio Index method.

The data collection technique used is documentation. Information in the form of financial statements of companies engaged in the health and pharmaceutical sectors that have been listed on the IDX for the period 2020 to 2022. Financial report data is obtained from publication reports on the IDX website, namely www.idx.co.id. In addition, researchers also collect information from several literatures including scientific journals, related books, and other literature sources.

After all the necessary financial statement data is obtained completely, the next research process is the implementation of data analysis. Analysis techniques Beneish Ratio Index Used to analyze the company's financial statement data samples. Account Beneish Ratio Index is used to determine the category of an enterprise included in the company's indication manipulator, nonmanipulator, or grey company.

RESULTS AND DISCUSSION**Population and Sample**

The population in this study is all health and pharmaceutical sector companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2022. Sample selection method using purposive sampling is the selection of samples based on research objectives with special considerations. The following sample criteria were selected in this study:

Table 1. Sample selection criteria

| No | Research Sample Criteria | Total |
|----|--|-------|
| 1 | Total health and pharmaceutical sector companies listed on the IDX | 30 |
| 2 | Complete financial report data is not available | (11) |
| 3 | Observation period 2020 - 2022 | 3 |
| | Number of companies used as samples | 19 |
| | Number of samples 19 companies x 3 years (2020 – 2022) | 57 |

Source: Data processed (2023)

Discussion

The purpose of the study is to group the number of health and pharmaceutical sector companies listed on the Indonesia Stock Exchange in several categories, including companies manipulator, nonmanipulator, and grey companies during 2020 – 2022. With several parameters that have been determined, a sample of 19 (nineteen) companies was obtained. The research period is 3 (three) years so the entire sample is 57 (fifty-seven) financial statements. The financial statement data is used for the calculation ratio index against each company. Use Beneish Ratio Index The results of these calculations are then adjusted to the parameter index. So that it can be known whether the company is classified manipulator, nonmanipulator, or grey company. The stages carried out to determine the above categories are as follows:

- a) Calculation of the company's ratio index with the calculated index
- b) Compare the calculated index with the index parameter ratio (Beneish Ratio Index)

Table 2. Ratio Parameter Index

| No. | Rasio | Indeks Parameter | | |
|-----|-------|--------------------|------------------------|--------------------------------|
| | | <i>Manipulator</i> | <i>Non Manipulator</i> | <i>Grey Company</i> |
| 1 | DSRI | $\geq 1,465$ | $\leq 1,031$ | $1,031 < \text{index} < 1,465$ |
| 2 | GMI | $\geq 1,193$ | $\leq 1,014$ | $1,014 < \text{index} < 1,193$ |
| 3 | AQI | $\geq 1,254$ | $\leq 1,039$ | $1,039 < \text{index} < 1,254$ |
| 4 | SGI | $\geq 1,607$ | $\leq 1,134$ | $1,134 < \text{index} < 1,607$ |
| 5 | DEPI | $\geq 1,077$ | $\leq 1,001$ | $1,001 < \text{index} < 1,077$ |
| 6 | SGAI | $\geq 1,041$ | $\leq 1,054$ | $1,054 < \text{index} < 1,041$ |
| 7 | LVGI | $\geq 1,111$ | $\leq 1,037$ | $1,037 < \text{index} < 1,111$ |
| 8 | TATA | $\geq 0,031$ | $\leq 0,018$ | $0,018 < \text{index} < 0,031$ |

Source : Beneish, 1999

- c) With the Beneish Ratio Index method, researchers can classify the companies that are sampled into 3 (three) categories, namely manipulators, non-manipulators, or gray companies (Eka Christy & Sugama Stephanus, 2018)
 1. Companies that have ≥ 3 calculated indices corresponding to the parameter index that states the manipulator, belongs to the manipulator.
 2. Companies that have ≥ 3 calculated indices that correspond to the parameter index that states non-manipulators, are classified as non-manipulators.
 3. Companies that have ≥ 3 calculated indices that match the parameter index that states gray company, and calculated indices that do not meet the 2 criteria for classifying manipulators and non-manipulators can be classified as gray companies.

Overall, the results of the company's ratio index calculation carried out on 19 samples per year can be seen in the following table:

Table 3. Ratio Index Calculation Results for 2020

| No. | Emiten | DSRI | GMI | AQI | SGI | TATA |
|-----|--------|-------|--------|--------|-------|--------|
| 1 | DVLA | 1,276 | 1,054 | 0,893 | 1,009 | 0,052 |
| 2 | INAF | 2,012 | 0,789 | 1,146 | 1,262 | 0,007 |
| 3 | KAEF | 0,678 | 1,020 | 1,250 | 1,064 | -0,021 |
| 4 | KLBF | 0,953 | 1,021 | 0,869 | 1,021 | -0,029 |
| 5 | MERK | 0,748 | 0,968 | 0,919 | 0,881 | 0,039 |
| 6 | MIKA | 1,275 | 0,967 | 0,904 | 1,067 | 0,008 |
| 7 | PYFA | 1,271 | 0,960 | 1,901 | 1,123 | 0,136 |
| 8 | SAME | 1,291 | 0,878 | 0,652 | 0,959 | -0,152 |
| 9 | SCPI | 1,188 | 1,114 | 11,194 | 1,571 | -0,063 |
| 10 | SIDO | 1,153 | 0,994 | 0,923 | 1,087 | 0,030 |
| 11 | SILO | 0,953 | 0,956 | 0,599 | 1,013 | -0,112 |
| 12 | SRAJ | 1,207 | 0,857 | 0,877 | 1,281 | -0,017 |
| 13 | TSPC | 1,077 | 1,082 | 1,202 | 0,998 | 0,010 |
| 14 | PRDA | 0,883 | 1,069 | 0,236 | 1,074 | -0,060 |
| 15 | PRIM | 0,910 | 0,719 | 0,775 | 1,496 | -0,011 |
| 16 | HEAL | 0,988 | 0,911 | 0,945 | 1,216 | -0,013 |
| 17 | PEHA | 0,869 | 1,033 | 1,213 | 0,887 | -0,102 |
| 18 | IRRA | 0,818 | 0,990 | 0,425 | 2,001 | -0,129 |
| 19 | CARE | 0,604 | -2,191 | 28,877 | 1,404 | -0,019 |

Data Source: Olah Data (2023)

Table 4. Ratio Index Calculation Results for 2021

| No. | Emiten | DSRI | GMI | AQI | SGI | TATA |
|-----|--------|-------|-------|--------|-------|--------|
| 1 | DVLA | 0,636 | 0,972 | 1,011 | 1,039 | -0,109 |
| 2 | INAF | 0,401 | 1,500 | 1,005 | 1,692 | -0,020 |
| 3 | KAEF | 0,991 | 1,069 | 0,955 | 1,285 | 0,068 |
| 4 | KLBF | 0,868 | 1,032 | 1,295 | 1,136 | 0,046 |
| 5 | MERK | 0,975 | 1,198 | 0,680 | 1,623 | 0,021 |
| 6 | MIKA | 0,315 | 0,953 | 1,223 | 1,273 | -0,061 |
| 7 | PYFA | 0,698 | 1,523 | 2,113 | 2,273 | 0,015 |
| 8 | SAME | 0,736 | 1,299 | 0,281 | 2,505 | -0,016 |
| 9 | SCPI | 0,639 | 1,508 | 1,084 | 0,746 | -0,256 |
| 10 | SIDO | 0,830 | 0,970 | 0,975 | 1,206 | 0,093 |
| 11 | SILO | 0,799 | 0,850 | 0,935 | 1,320 | -0,109 |
| 12 | SRAJ | 0,692 | 0,880 | 0,913 | 1,499 | -0,023 |
| 13 | TSPC | 0,916 | 1,000 | 1,136 | 1,024 | 0,043 |
| 14 | PRDA | 0,941 | 0,907 | 4,635 | 1,416 | -0,008 |
| 15 | PRIM | 0,276 | 1,191 | 0,406 | 2,302 | -0,117 |
| 16 | HEAL | 0,683 | 0,972 | 1,426 | 1,318 | -0,010 |
| 17 | PEHA | 0,897 | 1,080 | 1,014 | 1,072 | -0,054 |
| 18 | IRRA | 0,257 | 1,194 | 64,143 | 2,340 | 0,321 |
| 19 | CARE | 0,697 | 2,851 | 0,069 | 1,345 | -0,008 |

Data Source: Olah Data (2023)

Table 5. Ratio Index Calculation Results for 2022

| No. | Emiten | DSRI | GMI | AQI | SGI | TATA |
|-----|--------|-------|--------|-------|-------|--------|
| 1 | DVLA | 1,178 | 0,998 | 1,062 | 1,008 | 0,008 |
| 2 | INAF | 1,157 | -1,617 | 2,026 | 0,394 | -0,239 |
| 3 | KAEF | 1,258 | 0,914 | 0,852 | 0,747 | 0,025 |
| 4 | KLBF | 1,220 | 1,062 | 1,237 | 1,102 | 0,115 |
| 5 | MERK | 0,505 | 0,985 | 0,854 | 1,057 | 0,124 |
| 6 | MIKA | 1,783 | 1,013 | 1,019 | 0,930 | 0,030 |
| 7 | PYFA | 1,395 | 1,106 | 0,709 | 1,135 | 0,224 |
| 8 | SAME | 0,975 | 1,247 | 1,838 | 1,096 | 0,061 |
| 9 | SCPI | 0,727 | 0,879 | 0,143 | 1,083 | 0,021 |
| 10 | SIDO | 1,076 | 1,016 | 1,167 | 0,961 | 0,070 |
| 11 | SILO | 1,003 | 1,038 | 0,962 | 1,015 | -0,069 |
| 12 | SRAJ | 1,034 | 1,272 | 0,868 | 1,005 | -0,031 |
| 13 | TSPC | 1,100 | 1,050 | 0,683 | 1,091 | 0,021 |
| 14 | PRDA | 1,193 | 1,012 | 1,563 | 0,823 | -0,005 |
| 15 | PRIM | 3,245 | 0,812 | 1,190 | 0,437 | 0,124 |
| 16 | HEAL | 0,996 | 1,427 | 4,032 | 0,842 | -0,037 |
| 17 | PEHA | 0,923 | 0,988 | 1,021 | 1,111 | -0,040 |
| 18 | IRRA | 2,616 | 0,846 | 1,061 | 0,571 | 0,142 |
| 19 | CARE | 0,558 | -0,056 | 0,378 | 0,804 | -0,003 |

Data Source: Olah Data (2023)

The results of the classification of companies classified against 19 companies per year are presented in the following table:

Table 6. 2020 Company Classification Results

| No. | Emiten | DSRI | GMI | AQI | SGI | TATA | Categori |
|-----|--------|------|-----|-----|-----|------|------------------------|
| 1 | DVLA | G | G | N | N | M | <i>Grey Company</i> |
| 2 | INAF | M | N | G | G | N | <i>Grey Company</i> |
| 3 | KAEF | N | G | G | N | N | <i>Non Manipulator</i> |
| 4 | KLBF | N | G | N | N | N | <i>Non Manipulator</i> |
| 5 | MERK | N | N | N | N | M | <i>Non Manipulator</i> |
| 6 | MIKA | G | N | N | N | N | <i>Non Manipulator</i> |
| 7 | PYFA | G | N | M | N | M | <i>Grey Company</i> |
| 8 | SAME | G | N | N | N | N | <i>Non Manipulator</i> |
| 9 | SCPI | G | G | M | G | N | <i>Grey Company</i> |
| 10 | SIDO | G | N | N | N | G | <i>Non Manipulator</i> |
| 11 | SILO | N | N | N | N | N | <i>Non Manipulator</i> |
| 12 | SRAJ | G | N | N | G | N | <i>Non Manipulator</i> |
| 13 | TSPC | G | G | G | N | N | <i>Grey Company</i> |
| 14 | PRDA | N | G | N | N | N | <i>Non Manipulator</i> |
| 15 | PRIM | N | N | N | G | N | <i>Non Manipulator</i> |
| 16 | HEAL | N | N | N | G | N | <i>Non Manipulator</i> |
| 17 | PEHA | N | G | G | N | N | <i>Non Manipulator</i> |
| 18 | IRRA | N | N | N | M | N | <i>Non Manipulator</i> |
| 19 | CARE | N | N | M | G | N | <i>Non Manipulator</i> |

Source: Data Processing (2023)

Based on the table above, it can be seen that in 2020, there were no companies classified as manipulators, 14 (fourteen) companies were classified as manipulators, and 5 (five) companies were classified as grey companies.

Table 7. Company Classification Results for 2021

| No. | Emiten | DSRI | GMI | AQI | SGI | TATA | Categori |
|-----|--------|------|-----|-----|-----|------|------------------------|
| 1 | DVLA | N | N | N | N | N | <i>Non Manipulator</i> |
| 2 | INAF | N | M | N | M | N | <i>Non Manipulator</i> |
| 3 | KAEF | N | G | N | G | M | <i>Grey Company</i> |
| 4 | KLBF | N | G | M | G | M | <i>Grey Company</i> |
| 5 | MERK | N | M | N | M | G | <i>Grey Company</i> |
| 6 | MIKA | N | N | G | G | N | <i>Non Manipulator</i> |
| 7 | PYFA | N | M | M | M | N | <i>Manipulator</i> |
| 8 | SAME | N | M | N | M | N | <i>Non Manipulator</i> |
| 9 | SCPI | N | M | G | N | N | <i>Non Manipulator</i> |
| 10 | SIDO | N | N | N | G | M | <i>Non Manipulator</i> |
| 11 | SILO | N | N | N | G | N | <i>Non Manipulator</i> |
| 12 | SRAJ | N | N | N | G | N | <i>Non Manipulator</i> |
| 13 | TSPC | N | N | G | N | M | <i>Non Manipulator</i> |
| 14 | PRDA | N | N | M | G | N | <i>Non Manipulator</i> |
| 15 | PRIM | N | G | N | M | N | <i>Non Manipulator</i> |
| 16 | HEAL | N | N | M | G | N | <i>Non Manipulator</i> |
| 17 | PEHA | N | G | N | N | N | <i>Non Manipulator</i> |
| 18 | IRRA | N | M | M | M | M | <i>Manipulator</i> |
| 19 | CARE | N | M | N | G | N | <i>Non Manipulator</i> |

Source: Data Processing (2023)

Based on the table above, it can be seen that in 2021, 2 (two) companies are classified as manipulators, 14 (fourteen) companies are classified as nonmanipulators, and 3 (three) companies are classified as grey companies.

Table 8. Company Classification Results for 2022

| No. | Emiten | DSRI | GMI | AQI | SGI | TATA | Categori |
|-----|--------|------|-----|-----|-----|------|------------------------|
| 1 | DVLA | G | N | G | N | N | <i>Non Manipulator</i> |
| 2 | INAF | G | N | M | N | N | <i>Non Manipulator</i> |
| 3 | KAEF | G | N | N | N | G | <i>Non Manipulator</i> |
| 4 | KLBF | G | G | G | N | M | <i>Grey Company</i> |
| 5 | MERK | N | N | N | N | M | <i>Non Manipulator</i> |
| 6 | MIKA | M | N | N | N | G | <i>Non Manipulator</i> |
| 7 | PYFA | G | G | N | G | M | <i>Grey Company</i> |
| 8 | SAME | N | M | M | N | M | <i>Manipulator</i> |
| 9 | SCPI | N | N | N | N | G | <i>Non Manipulator</i> |
| 10 | SIDO | G | G | G | N | M | <i>Grey Company</i> |
| 11 | SILO | N | G | N | N | N | <i>Non Manipulator</i> |
| 12 | SRAJ | G | M | N | N | N | <i>Non Manipulator</i> |
| 13 | TSPC | G | G | N | N | G | <i>Grey Company</i> |
| 14 | PRDA | G | N | M | N | N | <i>Non Manipulator</i> |
| 15 | PRIM | G | N | G | N | M | <i>Grey Company</i> |
| 16 | HEAL | N | M | M | N | N | <i>Non Manipulator</i> |
| 17 | PEHA | N | N | N | N | N | <i>Non Manipulator</i> |
| 18 | IRRA | M | N | G | N | M | <i>Grey Company</i> |
| 19 | CARE | N | N | N | N | N | <i>Non Manipulator</i> |

Source: Data Processing (2023)

Based on the table above, it can be seen that in 2022, 1 (one) company is classified as a manipulator, 12 (twelve) companies are classified as non-manipulators, and 6 (six) companies are classified as gray companies.

CONCLUSION

Based on the analysis and discussion above, the following conclusions can be drawn: 1) Analysis Beneish Ratio Index shows that health and pharmaceutical sector companies listed on the Indonesia Stock Exchange in 2020 – 2022 in 2020 did not find any companies classified as manipulators, In 2021 there are 2 (two) companies and in 2022 there will be 1 (one) company. Companies classified as manipulators The highest occurred in 2021. Companies belonging to the category of manipulators have indications of cheating (fraud) in the presentation of financial statements. 2) Analysis Beneish Ratio Index shows that health and pharmaceutical sector companies listed on the Indonesia Stock Exchange in 2020 – 2022 are classified as manipulators In 2020 there were 14 (fourteen) companies, in 2021 there were 14 (fourteen) companies, and in 2022 there were 12 (twelve) companies. Companies classified as manipulators The highest occurred in 2020 and 2021. This shows that the company commits to presenting financial statements that are not detrimental to stakeholders interested in the company's financial statements. 3) Analysis Beneish Ratio Index shows that health and pharmaceutical sector companies listed on the Indonesia Stock Exchange in 2020 – 2022 are classified as a grey company In 2020 there were 5 (five) companies, in 2021 there were 3 (three) companies, and in 2022 there were 6 (six) companies classified as a grey company. Companies in this category cannot be subject to judgment the company is indicated to be manipulating but the amount is not significant. And the study does not state that companies are unfit for investors or creditors.

Suggestion

Based on the conclusions obtained and existing limitations, suggestions for future research are expected to choose research methods with more accurate results so that they can be used in all types of company sectors and increase the number of company samples to predict fraud in financial statements in other sectors. In addition, further researchers are expected to extend the period studied to find out the history of the company studied from year to year.

Stakeholders are expected to be able to conduct a good analysis of the financial statements or look for additional information outside the financial statements to minimize losses caused by financial statement fraud.

Researchers hope for future research to explore other factors that can detect fraud, not just classifying companies into manipulators, non-manipulators, and gray companies.

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