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Analysis of Company Indications of Financial Distress in Health Companies on IDX 2019-2022

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Abstract

The purpose of this study was to predict financial distress using the S-Score method in health companies listed on the IDX. The samples used in this study were health companies listed on the IDX for the 2019-2022 period using purposive sampling method. the data collection used in this study is secondary data derived from financial reports on the IDX. The method used in this research is descriptive analysis. The prediction results of the springate method financial distress calculation (S-Score) in health companies listed on the IDX show that there are four companies that have experienced financial distress for four consecutive years. Based on the results obtained in this study, it can provide implications in scientific development, namely as reference material for further research, especially research related to financial distress. As well as direct implications for potential investors who want to invest their funds in the IDX, especially in health companies.

Keywords: Financial Distress; Report; Financial; S-Score

1. Introduction

Company refers to a particular organization whose founder can be a single person, a group of people, or another type of business, and whose purpose is to meet the needs of mankind through production and distribution (Rochmah &; Titisari, 2022). The health industry is considered an industry with unique characteristics that are sometimes not owned by other economic sectors, namely not profit-oriented (profit or non-profit). Companies engaged in hospital services have a bright business future because health needs are considered mandatory and urgent. Hospital service companies also have the opportunity to earn additional revenue through partnerships with various health insurance companies. The large demand from the health sector in Indonesia coupled with the existence of the Social Security Organizing Agency (BPJS) Health system and the increasing number of outpatient services are expected to increase the company's profit margins. It operates in the hospital services sector.

The need for medical facilities and equipment in Indonesia is increasingly adequate, thus improving quality medical services by prioritizing patient health. In addition to prioritizing patient health, efficient and structured facility management in each department is also the most important thing for companies. One of the most important factors for a business is the financial part. Good companies exist in the financial sector by looking at good company financial statements [2]. The company's strategy to improve its reputation is corporate social responsibility. Commitment to better shareholders and investors. In line with the stakeholder approach, the company is not only responsible to its shareholders, but also needs to consider the importance of other stakeholders who can affect the achievement of company goals (Rahmawati, 2018).

Financial statement analysis basically involves determining the level of profitability and the level of risk or health of the business. Through financial statement analysis, it can also be known whether the company's achievements are in accordance with its goals or not. One of the techniques used in financial statement analysis is the use of data comparisons in related financial statements, as a form of evaluating the performance of a company within a certain period of time. This comparison technique is called financial ratio analysis (Nurdiwaty &; Zaman, 2021).

Financial distress is a period of deterioration in the financial position of a company, which occurs before dissolution or bankruptcy. businesses classified as experiencing financial distress are identified as financial difficulties when the company has negative earnings per share (EPS). Financial distress also causes the company to be unable or not have enough funds to pay its overdue obligations. One of the things that can be used as a measuring tool to predict the onset of financial difficulties is to measure financial performance in accurately prepared financial statements [5]. One of the main novelties of this study lies in the application of innovative analytical methodologies, where this research utilizes new and more comprehensive analytical models to identify indications of financial distress. The results of this study not only provide a more in-depth picture of the financial condition of healthcare companies on the IDX but also provide a foundation for a better understanding of risk management strategies that can be adopted by healthcare companies in the face of potential financial distress in the future.

In previous research, it was stated that financial distress indicates a condition that an entity is unable to pay obligations in accordance with its agreement (Fathya &; Kristanti, 2023). Analysis of financial distress is needed so that a company can take better action to anticipate because if left unchecked, it will have a negative impact, namely a decrease in the company's business and even cause bankruptcy (Sumani, 2020). Subsequent research showed the opposite result when debt positively affects financial distress, if debt increases it will have a direct impact on financial distress. The results obtained by previous researchers showed different results, so there was no consistency with the results of previous studies (adi, et al., 2018), so the researchers wanted to conduct a study on "predictions of financial distress in health companies listed on the IDX for the 2019-2022 period".

2. Methodology

The type of research used in this study is quantitative research. The population in this study is health companies listed in 2019-2022 on the Indonesia Stock Exchange (IDX). Data collection techniques using purposive sampling techniques, according to Sugiyono (2019) purposive sampling is data collection using considerations in accordance with the desired criteria to determine the number of samples to be produced.

The criteria in determining the sample are as follows:

1. Healthcare Companies listed on the Indonesia Stock Exchange during the period 2019-2022

2. Health companies that issue complete financial statements and in accordance with criteria during the 2019-2022 period in accordance with the data required in research variables.

Based on these criteria, companies that are sampled in this study that meet the criteria can be obtained as many as 56 data obtained from a sample of 14 companies multiplied by 4 years of the research period. The data collection method used in this study is secondary data from the financial statements of the Indonesia Stock Exchange (IDX).

Financial Distress

Financial Distress in this study used the Springate method (S-Score). This method was developed in 1978 by Gorgon LV Springate. The Springate model is a model that uses Multiple Discriminant Analysis (MDA). The MDA method requires more than a company's bankruptcy-related financial ratios to form a good model. To determine which ratios can detect bankruptcy, the Springate Method uses MDA to select 4 ratios from 19 common financial ratios in the literature that can distinguish healthy companies from bankrupt companies in the study (Sinarti et al., 2015). This model has a greater degree of accuracy, which is the most accurate bankruptcy analysis model after Altman. The formula of the Springate Method is:

S = 1.03A+3.07B+0.66C+0.4D

Which:

S : Index Level S-Score

A : Working Capital/Total Aset

B : EBIT/Total Aset

C : EBT/Current Liabilities

D : Sales/Total Assets

Data Analysis Methods

This study uses a descriptive analysis method used to identify and explain the picture of financial distress in health companies listed on the IDX for the 2019-2022 period.

3. Result and Discussion

3.1. Result

Description of Data on Health companies listed on IDX

The description of the data required in the Springate method (S-Score) comes from financial statement data on health companies listed on the IDX for the 2019-2022 period in the form of statements of financial position and income statements, namely current assets, total assets, profit before interest and tax, profit before tax, current liabilities, and sales.

Tabel 1.1 Data Name of Health Companies Listed on IDX 2019-2022

No	Company Name	Company Code
1	PT Darya-Varia Labora Toria Tbk	DVLA
2	PT Indofarma Tbk	INAF
3	PT Industri Jamu dan Farmasi Sido Muncul	SIDO
4	PT Itama Ranoraya Tbk	IRRA
5	PT Kimia Farma Tbk	KAEF

6	PT Merck Tbk	MERK
7	PT Mitra Keluarga Karya Sehat Tbk	MIKA
8	PT Medikaloka Hermina Tbk	HEAL
9	PT Prodia Widyahusada Tbk	PRDA
10	PT Pyridam Farma Tbk	PYFA
11	PT Sarana Meditama Metropolitan Tbk	SAME
12	PT Sejahteraraya Anugrahjaya Tbk	SRAJ
13	PT Siloam International Hospital Tbk	SILO
14	PT Tempo Scan Pacific Tbk	TSPC

Source : Data processed by researchers

It can be seen in the table above that there are 14 Health company data names listed on the IDX 2019-2022 presenting the full name and short code of each company, which can help in data identification and analysis more easily. In accordance with the criteria in this study. Which will be analyzed in the calculation of the springate method which uses 4 required ratio components.

Calculation of Components of A, B, C, and D Ratios of Springate Method in Health Companies on IDX 2019-2022

The calculation in the springate method uses 4 required ratio components, which are as follows:

Component A: Comparison of Working Capital to Total Assets

Tabel 1.2 Calculation Results of Component A

No	Company Code	A			
		2019	2020	2021	2022
1	DVLA	0,459	0,425	0,447	0,481
2	INAF	0,281	0,174	0,182	-0,079
3	SIDO	0,475	0,388	0,418	0,405
4	IRRA	0,678	0,411	0,342	0,343
5	KAEF	-0,003	-0,040	0,012	0,023
6	MERK	0.450	0,443	0,473	0,536
7	MIKA	0,367	0,398	0,355	0,266
8	HEAL	0,123	0,122	0,112	0,011
9	PRDA	0,552	0,515	0,555	0,463
10	PYFA	0,360	0,370	0.093	0.160
11	SAME	-0,049	-0,086	0,107	0,038
12	SRAJ	-0,215	-0,184	-0,336	-0,201
13	SILO	0,061	0,088	0,140	0,053
14	TSPC	0,416	0,432	0,450	0,405

Source : Data processed by researchers

In the calculation of Component A, several companies, such as DVLA, SIDO, and PRDA, showed a relatively high level of working capital efficiency throughout the 2019-2022 period. This can be seen from the stable or increasing value of Component A, indicating that these companies can maintain a good balance between working capital and total assets. A number of companies experienced fluctuations and negative trends, such as INAF, KAEF, SAME, and SRAJ. Notably, KAEF recorded negative values in 2019-2022, indicating potential problems in working capital management. Some companies, such as HEAL and SILO, showed stability and consistency in working capital management, with relatively small changes over the observed periods.

Component B: Comparison of Profit Before Interest and Tax to Total Assets

Table 1.3 Calculation Results of Component B

No	Company Code	B			
		2019	2020	2021	2022
1	DVLA	0,162	0,106	0,100	0,099
2	INAF	0,036	0,034	0,026	-0,313
3	SIDO	0,290	0,299	0,387	0,341
4	IRRA	0,133	0,146	0,191	0,102
5	KAEF	0,027	0,037	0,055	0,027
6	MERK	0,139	0,117	0,187	0,230
7	MIKA	0,169	0,175	0,243	0,194
8	HEAL	0,116	0,164	0,233	0,077
9	PRDA	0,107	0,135	0,281	0,167
10	PYFA	0,080	0,141	0,064	0,227
11	SAME	-0,013	-0,139	0,037	0.007
12	SRAJ	-0,016	0,004	0,046	0,005
13	SILO	-0,013	0,046	0,109	0,106
14	TSPC	0,095	0,118	0,115	0,064

Source : Data processed by researchers

A number of companies, such as DVLA, SIDO, IRRA, MERK, MIKA, and PRDA, showed generally positive trends in the comparison of earnings before interest and tax to total assets during the 2019-2022 period. This can reflect the ability of these companies to generate profits comparable to the assets they manage. Some companies experience negative fluctuations and trends, such as INAF, KAEF, SAME, and SRAJ. INAF recorded a significant negative value in 2022, indicating potential problems in earnings before interest and tax performance. Some companies, such as HEAL, PYFA, SILO, and TSPC, showed stability and consistency in earnings before interest and tax performance on total assets during the observed period.

Component C: Comparison of Earnings Before Interest and Taxes Against Current Liabilities

Table 1.4 Calculation Results of Component C

No	Company Code	C			
		2019	2020	2021	2022
1	DVLA	0,686	0,385	0,355	0,417
2	INAF	0,022	0,022	0,008	-0,525
3	SIDO	26,274	2,142	2,969	2,624
4	IRRA	0,494	0,266	0,519	0,251
5	KAEF	0,005	0,011	0,066	0,006
6	MERK	0,468	0,398	0,673	0,995
7	MIKA	2,332	2,058	2,255	2,124
8	HEAL	0,484	0,639	1,018	0,281
9	PRDA	1,845	1,613	2,933	2,043
10	PYFA	0,460	0,662	0,035	0,885
11	SAME	-0,621	-1,279	0,469	0,047
12	SRAJ	-0,060	0,000	0,059	-0,016
13	SILO	-0,109	0,185	0,436	0,452
14	TSPC	0,408	0,530	0,580	0,430

Source : Data processed by researchers

In the calculation of Component C, there is a significant variation in the rate of return on earnings before interest and taxes on current liabilities between companies. Some companies, such as SIDO, MIKA, and PRDA, showed very high returns, while some others, such as SAME and SRAJ, recorded negative returns. Several companies, such as INAF, KAEF, SAME, and SRAJ, experienced significant fluctuations and negative trends during the 2019-2022 period. This may reflect challenges or problems in managing profits against current liabilities. Some companies, such as DVLA, IRRA, MERK, and TSPC, show stable or consistent returns over the observed period.

Component D Comparison of Sales to Total Assets

Tabel 1.5 Calculation Results of Component D

No	Company Code	D			
		2019	2020	2021	2022
1	DVLA	0,991	0,921	0,913	0,954
2	INAF	0,982	1,001	1,442	0,746
3	SIDO	0,869	0,866	0,988	0,947
4	IRRA	0,866	1,053	1,688	1,027
5	KAEF	0,512	0,570	0,724	0,472
6	MERK	0,826	0,705	1,037	1,084
7	MIKA	0,575	0,537	0,634	0,585
8	HEAL	0,719	0,695	0,775	0,646
9	PRDA	0,867	0,839	0,982	0,817

10	PYFA	1,295	1,214	0,782	0,470
11	SAME	0,237	0,269	0,257	0,271
12	SRAJ	0,322	0,295	0,395	0,336
13	SILO	0,906	0,844	1,008	0,985
14	TSPC	1,313	1,205	1,165	1,082

Source : Data processed by researchers

In the results of component D there is a significant variation in the level of sales efficiency between companies. Some companies, such as TSPC and PYFA, show high levels of efficiency with large sales-to-total asset ratios, while others, such as KAEF and SAME, have lower levels. Some companies experienced fluctuations in the ratio of sales to total assets during the period 2019-2022. For example, INAF experienced a significant increase in 2021, while PYFA experienced a considerable decrease in 2022. Some companies, such as DVLA, SIDO, IRRA, and PRDA, showed a degree of stability and consistency in sales efficiency during the observed periods.

Calculation and prediction of Financial Distress Using S-Score in health companies listed on the IDX for the 2019-2022 period

The calculation of financial distress predictions using the S-Score method for health companies listed on the IDX for the 2019-2022 period can be obtained from a calculation as follows

$$S = 1.03A+3.07B+0.66C+0.4D$$

Analysis of financial distress predictions using the S-Score method can be described by calculation standards as follows:

If the S-Score <0.862, then the company is classified as financial distress

If the S-Score >0.862 then the company is classified as healthy

The results of financial distress prediction using the S-Score method

Tabel 1.6 Overview of Financial Distress Component Calculation Results S-Score Method

No	Company Code	S-Score			
		2019	2020	2021	2022
1	DVLA	1,820	1,386	1,367	1,455
2	INAF	0,807	0,698	0,849	-1,090
3	SIDO	19,069	3,077	3,975	3,576
4	IRRA	1,781	1,468	1,956	1,244
5	KAEF	0,290	0,308	0,516	0,301
6	MERK	1,531	1,360	1,919	2,350
7	MIKA	2,665	2,519	2,854	2,505
8	HEAL	1,088	1,328	1,814	0,692
9	PRDA	2,463	2,346	3,762	2,666
10	PYFA	1,439	1,736	0,629	1,635
11	SAME	-0,404	-1,252	0,636	0,199
12	SRAJ	-0,180	-0,060	-0,007	-0,067

13	SILO	0,314	1,172	1,071	1,514
14	TSPC	0,692	1,639	1,664	1,331

Source : Data processed by researchers

3.2. Discussion

Based on the Analysis Results on the calculation of financial distress using the Springate method (S-Score), it can be seen that there are four companies that are predicted to experience financial distress for four consecutive years. One of the causes of financial distress is due to declining profit margins. Where profit margins have decreased significantly from year to year which is a sign of cost pressure or decreased competitiveness that can cause financial distress and large amounts of debt, If the company is too dependent on debt and cannot meet payment obligations, this can lead to uncontrollable financial difficulties.

This is in accordance with research conducted (Marlinda &; Yulia, 2020) where he stated that in the springate method, the liquidity ratio that affects the S-Score in predicting financial distress is the ratio of profit before tax to current liabilities. And research conducted [11] and (Laksmana &; Ayu, 2019) The Springate Method is known to use financial statements to predict the future bankruptcy of a company and serves as a means for stakeholders to analyze and evaluate the condition and performance of one or more companies. And as for the research conducted [13] states that Total Asset Turnover has no effect on financial distress which this statement is not in line with this study. Previous studies have brought various methods and approaches to identify and analyze factors that contribute to financial distress. This study tends to utilize predictive models, ratio analysis, and advanced statistical techniques to improve accuracy in predicting potential financial crises. In addition, it can explore the impact of external factors such as regulatory changes and economic conditions on the financial health of healthcare companies.

The results of this research are in line with the theory used, namely agency theory. [14] Where agency theory believes that there is a relationship between two parties, the first party occupies the position as principal and the second party as agent. Agency theory can provide an understanding of how management behavior can affect a company's risk of financial distress . Agency theory helps stakeholders, such as owners and investors, design incentive structures and monitoring mechanisms that can reduce the risk of financial hardship. In addition, agency theory also includes the analysis of relationships between health companies and third parties, such as healthcare providers and patients. The application of agency theory helps explain how healthcare companies can mitigate agency risk, maintain trust from stakeholders, and optimize outcomes for all parties involved. Therefore, the integration and careful monitoring of management activities and the establishment of incentive systems that are in line with the company's long-term interests will help manage the risk of financial distress.

This reflects the condition of the company is in a condition of financial distress which has a high risk of causing bankruptcy. [15] which states that the results of calculating financial distress using the Springate method (S-Score) are accurately used to predict financial distress. The results of financial hardship analysis are not entirely accurate for

measuring bankruptcy predictions. However, the results of the analysis are still important and are considered an early warning that must be watched out for company bankruptcy.

4. Conclusion

Based on the results of the analysis of financial distress calculations using the springate method (S-Score), it can be seen that there are four companies that are predicted to experience financial distress for four consecutive years. Two companies that experienced a healthy category change to financial distress from 2019-2022. And one company that experienced a change in the financial distress category to be healthy from 2019-2022.

Based on the results obtained in this study can have implications in scientific development, namely as reference material for future research, especially research related to financial distress. As well as direct implications to potential investors who want to invest their funds into the IDX, especially in health companies.

Suggestions for future research are expected to develop the research that has been done. Starting from the development of research sites so that they can be further developed not only in health companies, but can be done in other companies. Then the use of financial distress calculations can multiply calculation models so that the calculation results obtained are more accurate and not only use the Springate model calculation (S-Score).

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