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Analysis Of Potential Bankruptcy In Blue Bird Tbk And Transindo Utama Tbk Using Springate And Grover Models

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ABSTRACT

Financial statement analysis is very important for companies. By analysing financial statements, the potential for bankruptcy can be known from the start. Financial statements serve as a source of information for creditors, investors, employees, and other parties in need.In industry 4.0, everything is online, even transport. The object of this research is PT Blue Bird Tbk. and PT Transindo Utama Tbk. The purpose of this study is to determine the company's financial performance in the last five years and potential bankruptcy. The analysis method in this study is the Springate model and the Grover model.The conclusion of this study is that using the Springate model, PT Blue Bird Tbk. in 2018 shows a healthy financial condition, while in 2019-2022 it shows potential bankruptcy. PT Transindo Utama Tbk. in 2018, 2019, 2020, 2022 shows potential bankruptcy, while in 2021 the financial condition is healthy. Then using the Grover model, PT Blue Bird Tbk. shows no potential bankruptcy. PT Transindo Utama Tbk. shows potential bankruptcy in 2018-2020, while in 2021 and 2022 the financial condition is healthy.

INTRODUCTION

Industry 4.0 is a term first coined in Germany in 2011 that is characterised by a digital revolution. This industry is a digitally connected industrial process that includes various types of technology, ranging from 3D printing to robotics, which are believed to be able to increase productivity (Satya, n.d.). Industry 4.0 brings many changes in people's lifestyles. These changes have an impact on the economy, social, government, and politics. Nowadays, people want everything to be fast and practical. This is inseparable from the transport industry. This has given rise to a new industry, namely the online transport application industry. Online transport provides practical, cheap, and transparent services. The presence of this online transport application is positively welcomed by the community. Examples of online transport applications in Indonesia are Go-Jek, Grab, Maxim. This technological advancement in the field of

transportation certainly has an impact on companies that provide transportation services before.

The company's financial condition is very important for the company so that the company's financial management becomes crucial. Poor financial management will lead the company to bankruptcy. Financial distress is a condition where the company experiences a continuous decline in financial performance within a certain period of time. This condition can lead the company to bankruptcy. Financial distress needs to be known so that companies can anticipate bankruptcy. There are several methods to analyse company financial distress, namely Altman Z-Score, Springate S-Score, Ohlson O-Score, Zmijewski X-Score, Zavgren (Logit Model), and Grover. These methods develop along with the needs in measuring financial distress. Research results from(Salsabilla et al., 2023) entitled "Financial Distress Analysis of Transportation Companies During the Covid-19 Pandemic Using Altman Z Score and Zmijewski Model Analysis", shows that by using the Altman Z-Score model there are 3 companies that are in the healthy category, 2 companies are in an unhealthy condition and by using the Zmijewski model there are 2 companies that are in an unhealthy condition, 3 companies are in a healthy condition. Then research from (Azzahra & Pangestuti, 2022)entitled "Analysis of the Accuracy Level of Financial Distress Prediction Models in Transportation and Logistics Sector Companies" shows that the accuracy of the springate model is 70.77%, the zmijewski model is 67.69%, and the altman model is 50.29%. Then research from (Ratnasari, 2018) entitled "Analysis of the Accuracy of the Altman, Springate, Zmijewski and Grover Models in Predicting Bankruptcy" shows that the Altman model has an accuracy rate of 90.48% and a type error of 2.38%, Springate has an accuracy rate of 85.71% and a type error of 14.29%, Zmijewski has an accuracy rate of 83.33% and a type error of 16.67% and Grover has an accuracy rate of 80.95% and a type error of 19.05%.

Based on the explanation above, this study aims to identify potential bankruptcy in road transportation sub-sector companies with a sample of Blue Bird Tbk. and Express Transindo Utama Tbk companies and using the Springate model and Grover model. This study uses data on the financial statements of companies listed on the Indonesia Stock Exchange and has published financial reports for the last five years.

The difference between this research and previous research lies in the models used, namely the Springate model and the Grover model and the much longer period of financial statements, namely the last five years. The consideration of using the last five years is based on the historical emergence of online transportation applications in Indonesia, namely Go-Jek in 2010, Grab in 2014, Maxim in 2018 so that researchers want to see whether with this online transportation application, road transportation sub-sector companies have decreased financial performance and financial difficulties.

LITERATURE REVIEW

Signalling Theory

Signalling theory was first coined by Michael Spence in his research entitled Job Market Signalling (Spence, 1973) suggests that the signal provides a signal, the owner of the information tries to provide relevant pieces of information that can be utilised by the recipient. Signalling theory is basically concerned with reducing information asymmetry between the two parties (Spence, 2002). Signalling theory explains how the information owner sends information to the user and the information will be used as the basis for the user's decision making.

Signalling theory is a concept where information providers can choose what and how information will be displayed and information recipients can choose how to interpret the information received (Amalia, 2022). The recipient of the information will respond to the information received, whether the information contains positive signals or negative signals.

Signalling theory is based on the assumption that the information published by the company is received by users of financial statements or each party that is not the same (Pambudiati, 2019). This theory is related to information asymmetry which shows the existence of information asymmetry between company management and parties with an interest in information (Sesaria, 2020). Signalling theory explains how companies work to provide guidance to investors about how management views the company's prospects. (Suranta et al., 2023).. Signalling theory explains how a company should show financial reports to its clients (Robiansyah et al., 2023). (Robiansyah et al., 2023).

Financial Statements

Financial statements are a form of presentation of information by a company or entity to users of financial statements as a basis for decision making. (Indella & Husaini, 2021). Financial statements are the final result of recording transactions during one business period.

Financial reports are a communication medium used to connect interested parties to the company. (Husaini & Yuniza, 2020). Financial reports should be prepared using Generally Accepted Accounting Principles (GAAP). (Saiful et al., 2023). In Indonesia, GAAP is the Statement of Accounting Standards (PSAK) prepared by the Indonesian Institute of Accounting (IAI). The company's financial performance is reflected in the financial statements published by the company. (Sari et al., 2021).

Financial Distress

One of the declines in the company's performance was marked by the emergence of financial distress, which had negative impacts on the company (Abdillah et al., 2023). Financial distress is defined as the stage of financial decline that occurs before bankruptcy or liquidation (Platt & Platt, 2006). Financial distress is a condition where the company has difficulty paying its obligations characterised by a continuous decline in financial performance. Financial distress is an early sign that a company can experience bankruptcy and if the company is unable to fulfil its obligations and improve its financial performance, bankruptcy can occur in the company (Rismawati, 2022). (Rismawati, 2022).

Financial distress is a condition in which a company experiences a financial crisis and fails to fulfil its obligations.(Cahyani & Rr, 2022).. According to Hery (2017: 35) in (Suadnyana & Musmini, 2022) explains that the occurrence of financial distress is caused by various factors from both internal and external factors of the company. Internal factors are factors that arise from within the company and are usually micro. The internal factors that cause the company to experience financial distress include: 1) credit given to customers is too large, 2) weak human resource qualifications, 3) lack of working capital, 4) abuse of authority and fraud. While external factors are factors that arise from outside the company which are usually macro in nature which include: 1) intense business competition, 2) reduced demand for products and services produced, 3) continuous decline in selling prices, 4) accidents or natural disasters that befall the company that affect and harm the company's activities.

Springate Model

This model was developed in 1978 by Gorgon L.V. Springate (Peter & Yoseph, 2011). In this model, Springate developed the Altman method by using step-wise multiple discriminate analysis which in the end, from 19 popular financial ratios, only 4 financial ratios are used in this model. The formula of the springate model is as follows:

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

Where:
A = Working Capital to Total Assets
B = Earning before Interest and Taxes to Total Assets

C = Earning before Taxes to Current Liabilities
D = Sales to Total Assets

If the score is less than 0.862 (S < 0.862) the company is bankrupt. If the score is more than 0.862 (S> 0.862) the company is not bankrupt.

Grover Model

The Grover model is the youngest bankruptcy prediction model discovered by Jeffrey S. Grover in 2001. (Ratnasari, 2018). The Grover model is a model created by designing and reassessing the Altman Z-Score model. (Prihanthini & Sari, 2013).. Grover used a sample according to the Altman Z-Score model in 1986, adding thirteen new financial ratios. (Prihanthini & Sari, 2013). The formula of the Grover model is as follows
S = 1.650A+3.404B-0.016ROA+0.057

Where:
A = Working Capital to Total Assets
B = Earning before Interest and Taxes to Total Assets
ROA = Net Income to Total Assets

If the score is less than or equal to -0.02 (S ≤ -0.02) the company is bankrupt. If the score is more than or equal to 0.01 (S ≥ 0.01) the company is not bankrupt.

METHODS

The type of research used is a descriptive quantitative method. The variables used are in the Springate model: Working Capital to Total Asset, Earning before interest and tax to total assets, Earning Before Taxes to Current Liability, Sales to Total Asset. Grover model which consists of: Working Capital to Total Asset, Earning before interest and tax to total assets, Net income to total assets. The population in this study are road and transportation sub-sector companies listed on the Indonesia Stock Exchange.

While the sample in this study was taken by purposive sampling method with the following criteria: 1) The company is engaged in the transportation and logistics sector with the road and transportation sub-sector 2) The company provides taxi or car services and 3) The company publishes financial reports on the Indonesia Stock Exchange during the 2018-2022 period in a row. Based on these criteria, there are 2 companies that became research samples, namely Blue Bird Tbk. and Express Transindo Utama Tbk. Then, the formulas used in the Springate model and the Grover model are as follows:
S = 1.03A+3.07B+0.66C+0.4D
S = 1.650A+3.404B-0.016ROA+0.057

RESULTS

Springate Model

PT Blue Bird Tbk.

	2018	2019	2020	2021	2022
Current Asset	1,071,733	938,785	1,241,604	1,366,505	1,379,949
Current Liabilities	614,987	753,515	639,864	565,041	908,381
Working Capital	456,746	185,270	601,740	801,464	471,568
Total Assets	6,955,157	7,424,304	7,253,114	6,598,137	6,893,160

X1	0.07	0.02	0.08	0.12	0.07
Profit Before Tax	606,175	413,962	- 290,498	25,654	484,439
X2	0.09	0.06	-0.04	0.004	0.07
X3	0.99	0.55	-0.45	0.05	0.53
Sales	4,218,702	4,047,691	2,046,660	2,220,841	3,590,100
X4	0.61	0.55	0.28	0.34	0.52
S	1.228	0.778	-0.224	0.302	0.847
Description	Not Bankrupt	Bankrupt	Bankrupt	Bankrupt	Bankrupt

Data Source: Processed data, 2023

From the table above, it can be seen that using the Springate model, PT Blue Bird Tbk. has experienced financial difficulties in the last four years. In 2018, PT Blue Bird Tbk got a springate score of 1.228. In 2019, springate score 0.778. In 2020, springate score -0.224. In 2021, springate score 0.302. In 2022, springate score 0.847.

PT Transindo Utama Tbk

	2018	2019	2020	2021	2022
Current Asset	499,247,067	209,703,468	160,199,112	81,644,827	67,573,227
Current Liabilities	1,603,238,327	720,977,430	582,958,840	11,342,151	8,793,676
Working Capital	- 1,103,991,260	- 511,273,962	- 422,759,728	70,302,676	58,779,551
Total Assets	1,269,024,960	479,265,331	243,302,339	91,040,495	73,091,558
X1	-0.87	-1.07	-1.74	0.77	0.80
Profit Before Tax	- 872,192,278	- 204,508,321	- 73,000,559	180,179,087	- 15,022,098
X2	- 0.69	- 0.43	- 0.30	1.98	- 0.21
X3	-0.54	-0.28	-0.13	15.89	-1.71
Sales	241,663,924	134,251,103	21,541,634	7,263,061	2,948,504
X4	0.19	0.28	0.09	0.08	0.04
S	-3.289	-2.484	-2.758	17.388	-0.914
Description	Bankrupt	Bankrupt	Bankrupt	Not Bankrupt	Bankrupt

Data Source: Processed data, 2023

From the table above, it can be seen that using the Springate model, PT Transindo Utama Tbk. experienced financial difficulties in 2018, 2019, 2020, and 2022. Meanwhile, in 2021, PT Transindo Utama Tbk. has a healthy financial condition. In 2018, PT Transindo Utama Tbk. got a springate score of -3.289. In 2019, PT Transindo Utama Tbk. received a springate score of -2.484. In 2020, PT Transindo Utama Tbk. got a springate score of -2.758. In 2021, PT Transindo Utama Tbk. got a springate score of 17.388. In 2022, PT Transindo Utama Tbk got a springate score of -0.914.

Gover Model

PT Blue Bird Tbk.

	2018	2019	2020	2021	2022
Current Asset	1,071,733	938,785	1,241,604	1,366,505	1,379,949
Current Liabilities	614,987	753,515	639,864	565,041	908,381
Working Capital	456,746	185,270	601,740	801,464	471,568
Total Assets	6,955,157	7,424,304	7,253,114	6,598,137	6,893,160
X1	0.07	0.02	0.08	0.12	0.07
Profit Before Tax	606,175	413,962	- 290,498	25,654	484,439
X2	0.09	0.06	-0.04	0.00	0.07
Net Income	462,544	305,462	- 172,579	2,625	363,961
ROA	0.07	0.04	-0.02	0.00	0.05
S	0.463	0.289	0.057	0.271	0.410
Description	Not Bankrupt	Not Bankrupt	Not Bankrupt	Not Bankrupt	Not Bankrupt

Data Source: Processed data, 2023

From the table above, it can be seen that using the Grover model, PT Blue Bird Tbk. has not experienced potential bankruptcy in the last five years. In 2018, PT Blue Bird Tbk. got a grover score of 0.463. In 2019, PT Blue Bird Tbk. got a grover score of 0.289. In 2020, PT Blue Bird Tbk. got a grover score of 0.057. In 2021, PT Blue Bird Tbk. received a grover score of 0.271. In 2022, PT Blue Bird Tbk. got a grover score of 0.410.

PT Transindo Utama Tbk.

	2018	2019	2020	2021	2022
Current Asset	499,247,067	209,703,468	160,199,112	81,644,827	67,573,227
Current Liabilities	1,603,238,327	720,977,430	582,958,840	11,342,151	8,793,676
Working Capital	- 1,103,991,260	- 511,273,962	- 422,759,728	70,302,676	58,779,551
Total Assets	1,269,024,960	479,265,331	243,302,339	91,040,495	73,091,558
X1	-0.87	-1.07	-1.74	0.77	0.80
Profit Before Tax	- 872,192,278	- 204,508,321	- 73,000,559	180,179,087	- 15,022,098
X2	-0.69	-0.43	-0.30	1.98	-0.21
Net Income	- 831,099,787	- 269,475,458	- 52,073,509	188,614,656	- 14,903,708
ROA	-0.65	-0.56	-0.21	2.07	-0.20
Z	-3.728	-3.165	-3.835	8.101	0.681
Description	Bankrupt	Bankrupt	Bankrupt	Not Bankrupt	Not Bankrupt

Data Source: Processed data, 2023

From the table, it can be seen that using the Grover model, PT Transindo Utama Tbk. has potential bankruptcy in 2018 to 2020, while in 2021 and 2022, PT Transindo Utama Tbk. has a healthy financial condition. In 2018, PT Transindo Utama Tbk. received a grover score of -3.728. In 2019, PT Transindo Utama Tbk. received a grover score of -3.165. In 2020, PT Transindo Utama Tbk. received a grover score of -3.835. In 2021, PT Transindo Utama Tbk. received a grover score of 8.101. In 2022, PT Transindo Utama Tbk. received a grover score of 0.681.

DISCUSSION

The following is a recap table of prediction results using the Springate model and the Grover model at PT Blue Bird Tbk and PT Transindo Utama Tbk.

Recap of Springate Model Prediction Results

Company	2018	2019	2020	2021	2022
PT Blue Bird Tbk	Not Bankrupt	Bankrupt	Bankrupt	Bankrupt	Bankrupt
PT Transindo Utama Tbk	Bankrupt	Bankrupt	Bankrupt	Not Bankrupt	Bankrupt

Data Source: Processed data, 2023

Recap of Grover Model Prediction Results

Company	2018	2019	2020	2021	2022
PT Blue Bird Tbk	Not Bankrupt	Not Bankrupt	Not Bankrupt	Not Bankrupt	Not Bankrupt
PT Transindo Utama Tbk	Bankrupt	Bankrupt	Bankrupt	Not Bankrupt	Not Bankrupt

Data Source: Processed data, 2023

Based on the table of recapitulation of the Springate model predictions from the two sample companies for the 2018-2022 period, in 2018 PT Blue Bird Tbk had good financial performance, while in 2019 to 2022, PT Blue Bird Tbk showed potential bankruptcy. At PT Transindo Utama Tbk, good financial performance in 2021, for 2018, 2019, 2020, 2022, PT Transindo Utama Tbk shows potential bankruptcy.

Based on the Grover model prediction recap table, PT Blue Bird Tbk has good financial performance over the past five years. PT Transindo Utama Tbk, the company has poor financial performance in 2018 to 2020, then the company's financial performance improves in 2021 and 2022.

CONCLUSION

The conclusion of this study is that there are different results in analysing the potential for bankruptcy between the Springate model and the Grover model. At PT Blue Bird Tbk, using the Springate model shows that in 2018 the company's financial condition is in a healthy condition, in 2019 to 2022, the company's financial condition shows potential bankruptcy. At PT Transindo Utama Tbk, using the Springate model shows that the company's financial condition shows potential bankruptcy in 2018, 2019, 2020, and 2022, while in 2021, the company's financial condition is healthy.

Then using the Grover model, at PT Blue Bird Tbk. the results show that there is no potential bankruptcy in the company from 2018 to 2022. At PT Transindo Utama Tbk, there is potential bankruptcy in 2018, 2019, and 2020. Meanwhile, in 2021 and 2022, the financial performance of PT Transindo Utama is in a healthy condition.

Suggestion

Suggestions for future researchers, to use other models such as the Altman Z-Score model, Ohlson O-Score, Zmijewski X-Score, Zavgren (Logit Model), and other models in analysing potential bankruptcy. Then, future researchers can use other company sub-sectors such as the industrial, mining, and other sub-sectors in conducting research.

For companies that have the potential for bankruptcy, it is advisable to improve company performance and conduct evaluations. PT Blue Bird Tbk. and PT Transindo Utama Tbk. can consider collaborating with online transportation application companies or creating services using applications for ordering online transportation considering that nowadays the era has developed towards all-digital.

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