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COMPARATIVE ANALYSIS OF POTENTIAL BANKRUPTCY OF CONVENTIONAL TAXI COMPANIES LISTED ON THE INDONESIAN STOCK EXCHANGE

Kadek Indah Putriningrum *
Faculty of Economics and Business, Udayana University, Bali, Indonesia
kadekindahp@gmail.com

Sayu Ketut Sutrisna Dewi
Faculty of Economics and Business, Udayana University, Bali, Indonesia

Abstract

Bankruptcy is a condition where a company is no longer able to pay off its obligations. For this reason, companies need an early warning that can be used to detect bankruptcy that could be detrimental to the company. There are early indications of a company that can be recognized early if the financial statements are analyzed carefully in a certain way. This research aims to determine the prediction of potential bankruptcy of conventional taxi companies listed on the Indonesia Stock Exchange (BEI) using Altman (Z-Score), Springate (S-Score), and Grover (G-Score) analysis. The type of research used in this research is descriptive research with a quantitative approach. The data used in this research are the financial reports of the companies PT Blue Bird Tbk and PT Express Transindo Utama Tbk for the 2019-2022 period which were published on the Indonesia Stock Exchange website. The research results show that the Altman (Z-Score), Springate (S-Score), Grover (G-Score) methods show different value results. The differences in predicting potential bankruptcy in the three methods are found in the ratios used as well as differences in cut off values for each bankruptcy method. Based on the results of calculations using these three methods, it can be seen that the company PT Express Transindo Utama Tbk has more potential to experience bankruptcy compared to the company PT Blue Bird Tbk in the 2019-2022 period.

Keywords: Bankruptcy; Conventional taxi companies; Altman; Springate; Grover;

INTRODUCTION

As time goes by, technological developments also progress quite rapidly, this is marked by the many innovations and discoveries in the field of technology that are increasingly sophisticated and modern. With the development of this technology, it is certainly very helpful and facilitates all community activities. In this modern era, many industrial sectors have utilized online-based systems in their company operations. One industrial sector that has utilized online-based technology is the transportation industry. Since 2015, application-based or online transportation services have begun to emerge in Indonesia, especially the conventional taxi transportation industry which has seen new competitors, namely online taxis.

According to news published by Kompas.com on December 15 2017, the number of online transportation drivers has reached 900,000 people who can serve around 15,000,000 passengers in Indonesia. The existence of online taxis is a new alternative for people in terms of comfort, speed of travel, cheaper rates, and ease of making orders. However, society's shift from conventional taxis to online taxis has put enough pressure

on conventional taxi companies, causing conventional taxi companies to potentially go bankrupt. According to Anggraini's explanation (2020), which quoted a statement from the chairman of DPD Organda DKI Jakarta (2017), there were only four taxi companies out of 35 companies that were still surviving in 2017, namely Blue Bird, Express, Gamya, and Taxiku. Meanwhile, on the Indonesian Stock Exchange there are only two conventional taxi companies registered as companies that have gone public, namely PT. Express Transindo Utama Tbk (TAXI) and PT. Blue Bird Tbk (BIRD). Additionally, with the Covid-19 phenomenon in 2020, all industrial sectors including the transportation sector experienced paralysis. Since March 2020, the implementation of the PSBB has had a major impact on the transportation sector with the policy of limiting mobility which has caused many transportation businesses to implement efficiency and even stop operations.

Table 1
Total Income PT. Express Transindo Utama Tbk and PT. Blue Bird Tbk 2019-2022 Period

Year	PT. Express Transindo Utama Tbk (TAXI)	PT. Blue Bird Tbk (BIRD)
2019	134,251,103,000	4,047,691,000,000
2020	21,541,634,000	2,046,660,000,000
2021	7,263,061,000	2,220,841,000,000
2022	2,948,504,000	3,590,100,000,000

Source: Annual Report PT. Express Transindo Utama Tbk and PT. Blue Bird Tbk (www.idx.co.id).

Table 1.1 above shows the development income of PT. Express Transindo Utama Tbk and PT. Blue Bird Tbk from 2019-2022 experienced a decline. Income at PT. Express Transindo Utama Tbk decreased drastically from 2019 amounting to IDR 134,251,103,000 to IDR 2,948,504,000 at the end of 2022. The same thing also happened to PT. Blue Bird Tbk experienced a decrease in 2020 to IDR 2,046,660,000,000, which then began to experience a slight increase in the following years, namely in 2021 IDR 2,220,841,000,000, then increased again to IDR 3,590,100,000,000 at the end of the year 2022.

The emergence of online-based transportation or online taxis has certainly had a very significant impact on the conventional taxi industry. In order to anticipate bankruptcy in a company, company management needs to carry out bankruptcy prediction analysis to assess the company's financial performance, and to determine the steps that will be taken to overcome financial difficulties. To find out the level of bankruptcy in a company, it can be seen and measured through financial reports by analyzing the ratios of the financial reports. Bankruptcy risk analysis can provide a good or bad picture of a company's financial position which could result in failure. There are several methods that can be used to predict the bankruptcy of a company, some of which are using the Altman Z-Score model, the Springate model, and the Grover model. The reason for choosing to use three bankruptcy prediction methods, namely the Altman (Z-Score), Springate (S-Score), and Grover (G-Score) methods is because these three methods are well known for being easy and simple to implement and have a high level of accuracy. and good accuracy in predicting bankruptcy. This research will conduct an analysis of potential bankruptcy using the Altman, Springate, and Grover methods on

conventional taxi companies listed on the Indonesia Stock Exchange for the 2019-2022 period and compare the results of predictions of potential bankruptcy for these companies.

RESEARCH METHODS

This type of research is descriptive research with a quantitative approach. The data source used in this research is secondary data obtained through the financial reports of conventional taxi companies listed on the Indonesia Stock Exchange for the period 2019 to 2022 by accessing the internet site.www.idx.co.id. In this research, researchers used a saturated sampling technique which used all members of the population as samples, namely conventional taxi companies listed on the Indonesia Stock Exchange, namely PT Blue Bird Tbk (BIRD) and PT Express Transindo Utama Tbk (TAXI). The data collection technique in this research is a documentation technique because it is carried out by analyzing secondary data based on the financial reports of PT Blue Bird Tbk (BIRD) and PT Express Transindo Utama Tbk (TAXI). This research uses a company bankruptcy analysis method with three methods, namely the Altman, Springate, and Grover methods, which will then carry out a comparative analysis of the calculation results.

RESULTS AND DISCUSSION

Altman Method Calculation and Analysis Results

The following are the results of calculating the Altman ratio for the two conventional taxi companies from 2019 to 2022.

Table 2.
Calculation of the Altman Z-Score ratio for BIRD and TAXI companies

Code	Year	6.56X1	3.26X2	6.72X3	1.05X4	Z-Score	Criteria
BIRD	2019	0.164	1,118	0.302	2,816	4,400	*Non-Distress*
	2020	0.544	1,068	-0.366	2,725	3,970	*Non-Distress*
	2021	0.797	1,130	1,033	3,726	5,686	*Non-Distress*
	2022	0.449	1,175	0.478	3,642	5,744	*Non-Distress*
TAXI	2019	-6,998	-9,460	-2,966	-0.511	-19,938	*Distress*
	2020	-11,399	-19,529	-2,211	-0.715	-33,854	*Distress*
	2021	5,066	-45,431	13,298	5,335	-21,733	*Distress*
	2022	5,275	-57,241	-1,383	5,529	-47,819	*Distress*

Source: Research data (2024)

The reason why PT Express Transindo Utama Tbk is in a position of financial distress is because The value of current liabilities held is greater than current assets, so that the company's working capital is negative and decreased in the 2019 and 2020 periods. Then, the value of retained earnings and The company's profit before tax and interest (EBIT) which is in the negative category describes PT. Express Transindo Utama Tbk experienced a decline in profits and even losses. Furthermore, the negative value of the company's profit before tax and interest (EBIT) causes the company to become less effective and efficient in managing its assets because the company's low operating

income cannot cover other expenses besides its operating expenses. In this calculation, it can also be seen that in the 2019-2022 period, PT Blue Bird Tbk. did not experience financial difficulties so that it did not have the potential for bankruptcy. A decrease in the Z-Score of PT Express Transindo Utama Tbk can be a signal to the market that the company's financial condition is not healthy and may face difficulties to meet its financial obligations. At the same time, a comparison with PT Blue Bird Tbk which is not experiencing financial difficulties shows a contrast in financial health conditions. Although PT Blue Bird Tbk experienced a decline in X3, overall the company did not show significant signs of financial distress, as happened to PT Express Transindo Utama Tbk.

Springate Method Calculation and Analysis Results

The following are the results of calculating the Springate ratio for the two conventional taxi companies from 2019 to 2022.

Table 3.
Calculation of the Springate S-Score ratio for BIRD and TAXI companies

Code	Year	1.03A	3.07B	0.66C	0.4D	S-Score	Criteria
BIRD	2019	0.026	0.138	0.363	0.218	0.744	*Distress*
	2020	0.085	-0.167	-0.300	0.113	-0.269	*Distress*
	2021	0.125	0.015	0.030	0.135	0.305	*Distress*
	2022	0.070	0.218	0.352	0.208	0.849	*Distress*
TAXI	2019	-1,099	-1,355	-0.187	0.112	-2,529	*Distress*
	2020	-1,790	-1,010	-0.083	0.035	-2,847	*Distress*
	2021	0.795	6,075	10,485	0.032	17,387	*Non-Distress*
	2022	0.828	-0.632	-1.127	0.016	-0.915	*Distress*

Source: Research data (2024)

Based on the table of bankruptcy prediction analysis results for PT Blue Bird Tbk. using the Springate method in the 2019 - 2022 period, shows that the S-Score value is below 0.862 so that the company is predicted to be in a state of Financial Distress and has the potential to experience bankruptcy. In 2020, the results show that the S-Score value is negative, that is, it has decreased quite significantly from the previous year but slowly increases in 2021 and almost reaches the cut off point for the non-financial distress category in 2022. Meanwhile, in 2021 PT. Express Transindo Utama is predicted to be in the Nonfinancial Distress category because the S-Score value in that period was below 0.862, namely 17.387. This was caused by the elimination of debt to its shareholders, namely PT. Rajawali Corpora, resulting in the company being able to record a profit at the end of 2021.

PT Blue Bird Tbk. was in the distress category during the research period due to earnings before tax and interest (EBIT) which decreased very significantly from before, even in 2020 reaching a negative value. Then the sales value and total assets of the two companies decreased, resulting in the company's D value calculation also decreasing. Meanwhile, in 2021 PT. Express Transindo Utama is predicted to be in the non-financial distress category because the S-Score value in that period was above 0.862, namely 10.46825. This was caused by the elimination of debt to its shareholders, namely PT. Rajawali Corpora. The significant decline in EBIT at PT Blue Bird Tbk, even reaching a negative value in 2020, can be interpreted as a negative signal. According to signaling

theory, a decline in earnings like this could be considered an indication that the company is facing significant financial or operational difficulties. Then, fluctuations in the sales growth of Blue Bird and Express Transindo Utama can be interpreted as a signal that the company may not have a stable or successful strategy in developing its business.

Grover Method Calculation and Analysis Results

The following are the results of calculating the Grover ratio for the two conventional taxi companies from 2019 to 2022.

Table 4.
Calculation of the Grover G-Score ratio for BIRD and TAXI companies

Code	Year	1,650X1	3.404X 2	0.016X 3	G-Score	Criteria
BIRD	2019	0.041	0.153	0.0007	0.2503	*Non-Distress*
	2020	0.137	-0.185	-0.0004	-0.0482	*Distress*
	2021	0.200	0.017	0.0000 2	0.2170	*Non-Distress*
	2022	0.113	0.242	0.0008	0.3541	*Non-Distress*
TAXI	2019	-1,760	-1,503	-0.0092	-3,197	*Distress*
	2020	-2,867	-1,120	-0.0035	-3,984	*Distress*
	2021	1,274	6,736	0.0331	7,977	*Non-Distress*
	2022	1,327	0.701	-0.0033	0.629	*Non-Distress*

Source: Research data (2024)

Based on the table of bankruptcy prediction analysis results for PT Blue Bird Tbk. using the Grover method in the 2019 - 2022 period, it shows that the G-Score value fluctuates every year, where the highest G-Score value is in 2022 with a score of 0.3541 which is included in the criteria for not going bankrupt, while the lowest G-Score value is in 2020 with a score of -0.0482 is included in the bankruptcy criteria. In this calculation, it can be seen that in the 2019, 2021 and 2022 periods, PT Blue Bird Tbk did not experience financial difficulties so there was no potential for bankruptcy, but in the 2020 period, PT Blue Bird Tbk. experiencing financial difficulties and potentially experiencing bankruptcy. Meanwhile, based on the results table of the bankruptcy prediction analysis of PT Express Transindo Utama Tbk. using the Grover method in the 2019 - 2022 period, shows that the G-Score value also fluctuates from year to year, where the highest G-Score value is in 2021 with a score of 7.977 which is included in the criteria for not going bankrupt, and the lowest G-Score value is in 2020 with a score of -3,984 is included in the bankruptcy criteria.

The financial distress condition that occurred at Blue Bird in 2020 was caused by the X2 value being in a negative position which was caused by the company's EBIT value in 2020 being negative. The negative G-Score value in the 2020 period was also caused by negative net profit (loss), resulting in X3 (ROA) being negative, and resulting in a further decline in the company's G-Score value. In the 2019 - 2020 period, PT Express Transindo Utama Tbk. experiencing financial difficulties, because the X1 ratio is negative, which

means that all assets are unable to produce the company's working capital, the which means that the company's overall assets are unable to produce the company's net profit or the level of profitability is very low. Meanwhile, in the 2021-2022 period PT Express Transindo Utama Tbk. has a G-Score value of more than 0.01, which means it is in the non-financial distress category so it is predicted that it has no potential for bankruptcy. The increase in the G-Score value in 2021 of PT Express Transindo Utama Tbk, which indicates that the company is not in nonfinancial distress, can be considered a positive signal.

Comparative Analysis of Bankruptcy Potential of PT Blue Bird Tbk and PT Express Transindo Utama Tbk

Table 5.
Comparison of Potential Bankruptcy

Code	Period	Predicate		
		Altman Z-Score	**Springate**	**Grover**
BIRD	2019	*Non-Distress*	*Distress*	*Non-Distress*
	2020	*Non-Distress*	*Distress*	*Distress*
	2021	*Non-Distress*	*Distress*	*Non-Distress*
	2022	*Non-Distress*	*Distress*	*Non-Distress*
TAXI	2019	*Distress*	*Distress*	*Distress*
	2020	*Distress*	*Distress*	*Distress*
	2021	*Distress*	*Non-Distress*	*Non-Distress*
	2022	*Distress*	*Distress*	*Non-Distress*

Source: research data (2024)

Based on the results of calculations using these three methods, it can be seen that the company PT Express Transindo Utama Tbk has a higher potential for bankruptcy compared to the company PT Blue Bird Tbk in the 2019-2022 period. The results of analytical calculations for each company using the Altman, Springate, and Grover models show different results. The differences in predictions of potential bankruptcy in the three bankruptcy methods are found in the ratios used as well as differences in cut off values for each bankruptcy method.

Through the results of this analysis, in 2019 a decision can be made for the BIRD company, namely that it is in a non-financial distress position, in the 2020 period a decision can be made that the company is in a financial distress position, in 2021 and 2022 a decision can be made that the BIRD company is in a non-financial position distress. Then, for the TAXI company in 2019 and 2020 a decision can be made to be in a position of financial distress, while in 2021 and 2022 it will be in a position of non-financial distress because looking at its income which has started to increase. Therefore, based on the calculation results of the three models, the model that is considered the most predictable and closest to the actual situation of the company according to the results of this research is the Grover model. This can be caused by the suitability of the selection of financial ratios that form the financial distress model in this model, namely working capital to total assets, EBIT to total assets and return on assets. This ratio is considered more convincing in the sense that it is theoretically and empirically proven to have a strong relationship with the possibility of company bankruptcy. This is also supported by several previous studies, namely Fauzan, Hafiz and Sutiono (2017) who conducted

research on predicting bankruptcy in banking companies. From the results of his research, the Grover method is the most appropriate method for predicting financial distress. Inggar Nur Arini (2021) conducted research analyzing the accuracy of financial distress prediction models. The results of the analysis and calculations conclude that the most accurate level of accuracy of the financial distress prediction model for retail companies is the Grover model which produces an accuracy level of 76.67%. Rahmawati et.al (2018) also analyzed financial distress using the Grover model, Altman model, Springate model, and Zmijewski model in telecommunications companies. Rahmawati et al concluded that the Grover model is the most accurate model with the highest accuracy level, namely 100%.

CONCLUSIONS AND SUGGESTIONS

Prediction results of potential bankruptcy using the Altman method (Z-Score) at PT. Blue Bird Tbk (BIRD) is predicted to be in the nonfinancial distress category for the 2019-2022 period. Then, at PT. Express Transindo Utama Tbk (TAXI) is predicted to be in the financial distress category during the research period. Prediction results of potential bankruptcy using the Springate method (S-Score) at PT. Blue Bird Tbk (BIRD) is predicted to be in the financial distress category during the 2019-2022 period. Meanwhile at PT. Express Transindo Utama Tbk (TAXI) is predicted to be in the financial distress category during the 2019-2020 period because the S-Score value produced during the 2019, 2020 and 2022 periods will be below 0.862 and in 2021 PT. Express Transindo Utama Tbk (TAXI) is in the nonfinancial distress category. Results of predicting potential bankruptcy using the Grover method at PT. Blue Bird Tbk (BIRD) is predicted to be in the financial distress category for the 2020 period, while in the 2019, 2021 and 2022 periods it will be in the non-financial category. Then, at PT. Express Transindo Utama Tbk (TAXI) is predicted to be in the financial distress category during the 2019-2020 period because the resulting G-Score value is below -0.02 and in the 2021-2022 period it will be in the non-financial distress category. The differences in predictions of potential bankruptcy in the three bankruptcy methods are found in the ratios used as well as differences in cut off values for each bankruptcy method. Based on the results of the analysis of the three models, the model that is considered the most predictable and closest to the actual situation of the company according to the results of this research is the Grover model.

For company management to use this research to detect the possibility of financial distress so that the potential for bankruptcy can be identified as early as possible so it is hoped that they will immediately take corrective steps quickly and precisely to prevent bankruptcy. For investors, it is hoped that the financial distress analysis of conventional taxi companies can be used as consideration in making the right decision to invest in a company. For future researchers, if they want to research the same company, it is hoped that they can add an analysis of the accuracy level of the prediction model. Then, to comprehensively see the potential for financial distress, other methods can be added besides Altman, Grover, and Springate. Future researchers can also research other industries to add to the research population apart from conventional taxi companies to find out differences in the level of accuracy of prediction models in various sectors. Apart from that, future researchers can also analyze other financial distress factors apart from the financial side, one of which is technological developments.

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