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FINANCIAL RATIO ANALYSIS IN PREDICTING FINANCIAL DISTRESS CONDITIONS BUMN COMPANIES LISTED ON THE INDONESIAN STOCK EXCHANGE DURING THE COVID-19 PANDEMIC WITH USING THE ALTMAN Z-SCORE METHOD

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Abstract

The research is that having sufficient working capital is very important for a company because with sufficient working capital it is possible for the company to operate as economically as possible and the company does not experience difficulties or face dangers that may arise due to a crisis or financial chaos. Companies with negative net working capital have a high probability of facing difficulties in paying off their short-term liabilities, because there are not enough current assets to cover these liabilities. A cumulative profitability measure that reflects a company's age as well as the company's earnings power. Profitable operations and debt reduction are characterized by companies retaining profits or reinvesting operating profits. Low retained earnings can indicate a bad business year or reduced company life. This ratio is an indicator that shows management efficiency in managing production, sales, administration and other activities. The lower the EBITTA ratio value indicates the lower productivity of assets in generating profits. The EBIT to total assets ratio shows the effectiveness of using all assets in generating company sales. The greater the value of this ratio, the more effective the management of all assets owned by the company. Earnings Before Interest and Tax to Total Assets (EBITTA) is one of the profitability ratios. This analysis is used to measure a company's ability to manage its resources effectively which can be seen from the results of its sales and investments. The EBITTA ratio measures whether a company's assets are used rationally to generate profits from its operating activities. If the resulting ratio is high, then the company's assets have been used rationally so that it can reduce the occurrence of Financial Distress. On the other hand, a low EBITTA ratio indicates that the company is likely to experience financial distress. The implication of this research is that this ratio is used to measure management's ability to use assets to generate sales and describe the turnover rate of all company assets. This ratio, which has a positive value, is a sign that the company has a good ability to use assets to generate sales and has a high level of asset turnover.

***Keywords**: working capital to total assets, retained earnings to total assets, ebit to total assets, sales to total assets*

INTRODUCTION

State-Owned Enterprises or BUMN are business entities whose majority shares or at least 51 percent are owned by the state. Referring to Law Number 19 of 2003 concerning State-Owned Enterprises, BUMN is a business entity whose capital comes entirely or largely from separated state assets, and is also an economic actor in the national economic system alongside private businesses and cooperatives. The aim of establishing BUMN is to realize community welfare and meet community needs, especially those concerning the livelihoods of many people. This is because many businesses are not run by the private sector, so the government feels the need to provide for the needs of many people through state companies. State-owned companies also experienced positive growth on the Indonesian Stock Exchange. This sector is inhabited by defensive stocks, namely stocks whose performance is almost unaffected by world and national economic conditions. Defensive stocks generally operate in the areas of primary and secondary needs. Consumers always need primary needs every day, so demand will continue to exist even though the economy is turbulent. It doesn't matter whether the price is expensive or not, people (consumers) will still buy it. The development of investment realization in state-owned companies listed on the Indonesian Stock Exchange can be seen as a measure of the progress of these companies.

The phenomenon occurred where the Minister of Finance, Sri Mulyani Indrawati, again revealed surprising facts about State-Owned Enterprises (BUMN). Sri Mulyani said that as many as 68% of BUMN, especially recipients of capital injections, faced the potential for bankruptcy. As for these BUMNs, explained Sri, they usually receive capital injections from the government through State Capital Participation (PMN). The possibility of bankruptcy was explained when dissecting the performance of BUMN recipients of PMN in 2020 during a working meeting with Commission XI DPR RI. In terms of distress or the possibility of going bankrupt, 68% of our BUMN (could go bankrupt) and 32% are in the safe category. Increased competition and changes in market conditions mean that producers must carefully address and make decisions in matters concerning the company. The performance of a company will have a direct impact on the value of the company in the eyes of investors, so companies are required to improve performance in order to maintain the level of share price fluctuations so that they do not experience significant increases or decreases. The company's financial condition can be seen from its financial reports by comparing financial ratios which are indicators of financial distress. According to Bahri (2015), bankruptcy of a company usually begins with financial difficulties which are characterized by uncertainty about profitability in the future. Predictions about a company's financial condition, related to bankruptcy, are important information for stakeholders, namely creditors, investors, regulatory authorities and auditors (Hadi, 2008).

According to research conducted by Sunaryo (2015), it shows that the Altman model is more accurate than the Springate model in predicting delisting. For the Altman model, those that significantly influence delisting are working capital to total assets, earnings before interest and taxes to total assets, and market value equity to total liabilities, while the other independent variables do not significantly influence delisting. The five financial ratios used in the Altman method to predict financial distress are working capital to total assets, retained earnings to total assets, EBIT to total assets, market value equity to book value of total debt, and sales to total assets as independent variables. If the value of each ratio does not meet the appropriate portion, the company is considered to be experiencing financial distress which could be at risk of bankruptcy. The working capital to total assets ratio is used to determine the proportion of working capital a company has from the total assets it owns. One element of working capital is current assets consisting of cash, receivables and inventories which have different levels of liquidity. If a company has current assets with a larger cash value composition, then the company is more liquid than a company that has current assets with the largest inventory composition (Fitriyah, 2013). Research on the ratio of working capital to total assets has been carried out by Nugroho (2012), Aprylia (2016) and Matturungan (2017) which states that the ratio of working capital to total assets has a positive influence on financial distress. The results of this research are different from those of Ardiyanto (2011) and Fitriyah (2013) who stated that the ratio of working capital to total assets has a negative effect on financial distress. Based on the description above, researchers are interested in conducting research with the title "Financial Ratio Analysis in Predicting Financial Distress Conditions."State-Owned Companies Listed on the Indonesian Stock Exchange During the Covid-19 Pandemic Using the Altman Z-Score Method".

LITERATURE REVIEW

1. Understanding Financial Distress

Financial distressis a situation where a company's operating cash flow is insufficient to satisfy current obligations (such as trading credit or interest expenses) and the company is forced to take corrective action. Financial distress can lead a company to bankruptcy. Bankruptcy can be seen from two sides, namely share-based bankruptcy which occurs when the assets of a company are less than the value of debt, this includes negative equity and cash flow-based bankruptcy which occurs when a company has a negative net value and the asset value is less than the value of its debt (Sjahrial, 2014). In article 1 point 1 of Law no. 37 of 2004, "Bankruptcy is a general confiscation of all assets of a bankrupt debtor whose management and settlement are carried out by a curator under the supervision of a Supervisory Judge as regulated in the Law."

2. Analysis of Financial Ratios

Financial ratios are a study that looks at the comparison between the amounts contained in the financial statements using formulas that are considered representative for application. This financial ratio is very important for analyzing the company's financial condition. Short and medium term investors are generally more interested in short term financial conditions and the company's ability to pay adequate dividends. This information can be found in a simpler way, namely by calculating financial ratios that suit your wishes. In the long term, financial ratios are also used and used as a reference in analyzing the performance conditions of a company. The reason is that the

stability conditions for the next ten years are not necessarily the same as the previous ten years (Fahmi, 2018). Financial ratio analysis is the most popular analysis for identifying a company's financial condition and financial performance. It is called a ratio because what is basically done is comparing one particular item in the financial report with other items (Syahyunan, 2015).

3. Financial Distress Analysis Using the Altman Method

Altman is known as a pioneer in bankruptcy theory with his Z-Score. Z-Score is a multivariable equation used by Altman to predict bankruptcy levels. Altman uses a statistical model called discriminant analysis, specifically multiple discriminant analysis (MDA). MDA began to be used in biological research in the 1930s. In MDA the sample is divided into two groups, in this case bankrupt companies and non-bankrupt companies. This is different from ordinary multiple regression which mixes the two samples. Before carrying out bankruptcy analysis, it is necessary to realize that in each model there is always the possibility of wrong predictions and differences in levels of accuracy (Syahyunan, 2015). Discriminant analysis is a statistical technique that identifies several types of financial ratios that are considered to have the most important value in influencing an event, then develops them in a model with the aim of making it easier to draw conclusions from an event. This discriminant analysis produces several groupings that are a priori or based on theory from actual reality. Altman's rationale for using discriminant analysis was originally from the limitations of financial ratio analysis, whose methodology is biased, therefore, to overcome the shortcomings of analysis, a combination of various financial ratios is needed to become a useful prediction model (Sunaryo, 2015).

The results of Altman's study were able to obtain a prediction accuracy level of 95% for data one year before bankruptcy. For data two years before bankruptcy, it was 72%. Apart from that, it is also known that companies with low profitability have the potential to experience bankruptcy. According to Prihadi in Sherli Anita (2017: 21), this method is formulated as follows:

$$\mathbf{Z = 6.56\ (X1) + 3.26\ (X2) + 6.72\ (X3) + 1.05\ (X4)}$$

Information:
Z = Financial Distress Index
X1 = WCTA (Working Capital to Total Assets)
X2 = RETA (Retained Earnings to Total Assets)
X3 = EBITTA (Earnings Before Interest and Taxes to Total Assets)
X4 = STA (Sales to Total Assets)

RESEARCH METHODS

1. Types and Nature of Research

The type of research used is descriptive research with a quantitative approach. Descriptive research is a research method aimed at describing existing phenomena, which are taking place now or in the past. The quantitative approach emphasizes objective phenomena and is studied quantitatively (Hamdi 2014).

2. Research Location and Time

This research was carried out instate-owned companies listed on the Indonesian Stock Exchange.The research was conducted from January 2023 to April 2023.

3. Operational Limitations

This operational limitation is only on Financial Ratio Analysis in Predicting Financial Distress ConditionsBUMN Holding Company Listed on the Indonesian Stock Exchange During the Covid-19 Pandemic Using the Altman Z-Score Method, on internal factors.

4. Population

Population is a generalized area consisting of objects/subjects that have certain qualities and characteristics that have been determined by researchers to be studied and then conclusions drawn (Sugiyono, 2011). The population in this study was all BUMN holding company listed on the Indonesian Stock Exchangefor the 2020-2022 period, namely 20 companies.

5. Sample

The sample is part of the number and characteristics of the population (Sugiyono, 2011). If the population is large, and it is impossible for researchers to study everything in the population, for example due to limited funds, energy and time, then researchers can use samples taken from that population. Samples taken from the population must be truly representative (representative). Based on these criteria, the author determined a sample of 19 companies to be included in the research sample data.

6. Types and Sources of Research Data

The type of data used in this research is quantitative data, namely data that is measured on a numerical scale. Researchers use secondary data obtained based on the results of publications by the Indonesian Stock Exchange, namely financial reports for the 2020-2022 period published in the period January 2023 to April 2023 which can be accessed via the official website of the Indonesian Stock Exchange (www.idx.co.id) and IDN Financials (www. idnfinancials.com).

7. Method of collecting data

The data collection method used in this research is the documentation method, namely collecting data from books, journals or websites related to the research problem. Secondary data in the form of financial reports was obtained from the official website of the Indonesian Stock Exchange.

RESEARCH RESULTS

1. Value Results Altman Z-Score Method

Value resultsThe Altman Z-Score method for 2020 to 2022 is as follows:

Table 1 Values Altman Z-Score Method for 2020 - 2022

No	CODE	2020		2021		2022	
		Mark Z-Score	Category	Mark Z-Score	Category	Mark Z-Score	Category
1	INAF	1.33	Gray Area	8.75	Not Bankrupt	1.57	Gray Area
2	KAEF	7.36	Not Bankrupt	1.17	Gray Area	1.44	Gray Area
3	PGAS	2.18	Gray Area	5.75	Not Bankrupt	-1.62	Bankrupt
4	KRAS	1.33	Gray Area	2.90	Not Bankrupt	1.03	Bankrupt
5	ADHI	2.75	Not Bankrupt	4.16	Not Bankrupt	2.12	Gray Area
6	PTPP	0.81	Bankrupt	0.27	Bankrupt	-4.31	Bankrupt
7	WIKA	3.93	Not Bankrupt	1.23	Gray Area	-0.84	Bankrupt
8	WSKT	2.99	Not Bankrupt	3.39	Not Bankrupt	3.35	Not Bankrupt
9	BBNI	3.24	Not Bankrupt	1.96	Gray Area	-0.76	Bankrupt
10	BBRI	1.28	Gray Area	-291.62	Bankrupt	1.53	Gray Area
11	BBTN	5.10	Not Bankrupt	-0.18	Bankrupt	2.79	Not Bankrupt
12	BMRI	1.83	Gray Area	-1.20	Bankrupt	5.33	Not Bankrupt
13	ANTM	5.37	Not Bankrupt	18.56	Not Bankrupt	69.78	Not Bankrupt
14	PTBA	1.86	Gray Area	1.26	Gray Area	1.26	Gray Area
15	SMBR	2.12	Gray Area	-3.93	Bankrupt	1.20	Gray Area
16	SMGR	2.87	Not Bankrupt	3.40	Not Bankrupt	25.40	Not Bankrupt
17	JSMR	2.24	Not Bankrupt	-1.12	Bankrupt	1.67	Gray Area
18	GIAA	-54.23	Bankrupt	1.73	Gray Area	1.63	Gray Area
19	TLKM	5.15	Not Bankrupt	2.96	Not Bankrupt	3.58	Not Bankrupt

Source: BEI (Processed by the Author, 2023)

Based on Table 1 above, it can be seen that in 2020 there were 10 state-owned companies in financial distress which were not considered bankrupt or 52.63%. Financial distress conditions are included in the gray area,

there are 7 companies or 36.84%. The condition of financial distress is included in the state of bankruptcy for 2 companies or 10.53%. In 2021, there are 8 state-owned companies in financial distress that are not bankrupt, or 42.10%. Financial distress conditions are included in the gray area, there are 5 companies or 26.32%. The condition of financial distress is included in the state of bankruptcy, there are 6 companies or 31.58%. In 2022, there will be 6 state-owned companies in financial distress that are not bankrupt, or 31.58%. Financial distress conditions are included in the gray area, there are 8 companies or 42.11%. The condition of financial distress is included in the state of bankruptcy, there are 5 companies or 26.31%.

2. Descriptive statistics

After the data used is collected, the next step is to analyze and evaluate the data. Before being analyzed and evaluated, the data is first processed using the SPSS (Statistics Product and Service Solution) program and then the output results will be evaluated to determine the variables. WCTA, RETA, EBITTA and STAand financial distress.

Table 2 Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
WCTA	57	-.10	2.54	11.4884	2.30458
RETA	57	-20.16	4.58	9.9967	9.19568
EBITTA	57	-33.79	7.91	33.3151	31.53011
STA	57	.00	4.48	1.6307	.74334
Financial Distress	57	-291.62	69.78	1.4561	.50250
Valid N (listwise)	57				

Source: SPSS Processing Results

In table 2 above, it is known that the average value of the WCTA variable is the minimum value atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022of -0.10, namely for SMBR companies in 2021, the maximum value is atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022of 2.54, namely for the SMGR company in 2022, the mean is11.4884 and the standard deviation is2.30458.

RETA variable minimum value atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022amounting to -20.16, namely for the BBRI company in 2021. The maximum value is atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022amounting to 4.58, namely for the ANTM company in 2022, the mean is equal to9.9967 and the standard deviation is9.19568. EBITTA variable minimum value atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022amounting to -33.79, namely for the BBRI company in 2021. The maximum value is atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022amounting to 7.91 in the ANTM company in 2022, the mean is equal to33.3151 and the standard deviation is31.53011.

Variable STA minimum value atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022of 0.00, namely for the PGAS company in 2022. The maximum value is atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022of 4.48 for the SMGR company in 2022, the mean is1.6307 and the standard deviation is0.74334. Variable*financial distress*minimum value onstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022amounting to -291.62. Maximum value atstate-owned companies listed on the Indonesian Stock Exchange during the Covid-19 Pandemic for the period 2020 to 2022of 69.78, mean of1.4561 and the standard deviation is0.50250,with a total of 57 data.

Table 3 *Financial Distress* Altman Z-Score Period 2020 to 2022

Information	2020		2021		2022	
	Company	(%)	Company	(%)	Company	(%)
Financial Distress	9/19	47.37	11/19	57.89	13/19	68.42
No*Financial Distress*	10/19	52.63	8/19	42.11	6/19	31.58

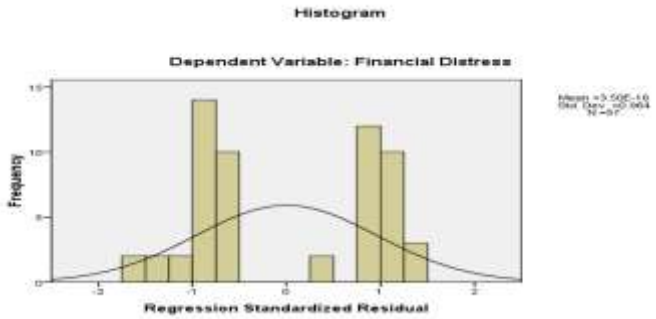
Source: Processed Data (2023) (Attachment)

In table 3 above, it can be seen that in 2020 there were 9 companies in financial distress or 47.37%, while there were 10 companies that were not in financial distress or 52.63%. In 2021, there were 11 companies in financial distress or 57.89%, while there were 8 companies that were not in financial distress or 42.11%. In 2022, there will be 13 companies in financial distress or 68.42%, while there will be 6 companies that are not in financial distress or 31.58%.

3. Classical Assumption Testing

a. Data Normality Test

The normality test is carried out to test whether the distribution of data follows or approaches a normal distribution.



Source: SPSS Processing Results

Figure 1 Histogram of Normality Test

Based on Figure 1 above, by looking at the histogram display of the normality test above, it can be concluded that the histogram shows a normal distribution pattern.

To further ensure whether the data along the diagonal line is normally distributed or not, the Kolmogorov Smirnov (1 Sample KS) test is carried out, namely by looking at the residual data whether the distribution is normal or not. If the value Asym.sig (2-tailed) > real level (α = 0.05) then the residual data is normally distributed.

Table 4 One Sample Kolmogorov Smirnov Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residuals
N		57
Normal Parametersa	Mean	.0000000
	Std. Deviation	.44398686
Most Extreme Differences	Absolute	,265
	Positive	,265
	Negative	-.233
Kolmogorov-Smirnov Z		2,002
Asymp. Sig. (2-tailed)		**,161**

a. Test distribution is Normal.

Source: SPSS Processing Results

In table 4 above, it can be seen that the results of data processing, the Smirnov Kolmogrov significance value is 0.161, so it can be concluded that the data is normally distributed, where the significance value is greater than 0.05 (p= 0.161 > 0.05).

Thus, overall it can be concluded that the data observation values are normally distributed and can be continued with other classical assumption tests.

b. Multicollinearity Test

The multicollinearity test was carried out to see whether there was a linear relationship between the independent variables in the regression model. The results of the multicollinearity test are explained in the table as follows:

Table 5 Multicollinearity Test

Model		Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	,307	,082	3,726	,000		
	WCTA	.021	,034	2,627	,042	,629	1,589
	RETA	,169	.143	3,186	.041	,602	3,675
	EBITTA	,046	,042	2,115	,043	,612	4,276
	STA	.211	.104	4,031	,037	,636	1,572

Source: SPSS Processing Results

From table 5 it can be seen that all independent variables are not subject to multicollinearity problems. This can be seen from the VIF < 10 and Tolerance > 0.10. The WCTA variable has a tolerance value of 0.692 and a VIF of 1.589. The RETA variable has a tolerance value of 0.602 and a VIF of 3.675. The EBITTA variable has a tolerance value of 0.612 and a VIF of 4.276. The STA variable has a tolerance value of 0.636 and a VIF of 1.572.

c. Autocorrelation Test

The autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error for period t and the error for the period (t-1) or before. Determining whether there is autocorrelation can be used using a run test. The basis for decision making in the run test is:

Table 6 Autocorrelation Test

Test Runs

	Unstandardized Residuals
Test Valuea	-.29289
Cases < Test Value	28
Cases >= Test Value	29
Total Cases	57
Number of Runs	32
Z	,671
Asymp. Sig. (2-tailed)	**,502**

a. Median

Source: SPSS Processing Results

Based on table 4.6 above, it can be seen thatAsymp value. Sig. (2-tailed) of 0.502 > from 0.05,then there are no symptoms of autocorrelation.

4. Multiple Linear Regression

Multiple linear regression analysis was carried out to determine the influence of the independent variables, namelyWCTA, RETA, EBITTA and STA to*financial distress*.

Table 7 Multiple Linear Regression

Model		Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	,307	,082	3,726	,000		
	WCTA	.021	,034	2,627	,042	,629	1,589
	RETA	,169	.143	3,186	.041	,602	3,675
	EBITTA	,046	,042	2,115	,043	,612	4,276
	STA	.211	.104	4,031	,037	,636	1,572

Source: SPSS Processing Results

Table 7 in the unstandardized coefficients beta column can be arranged in a multiple linear regression equation as follows:

$$Y = 0.307 + 0.021X1 + 0.169\ X2 + 0.046\ X3 + 0.211\ X4$$

The interpretation of the multiple linear regression equation is:

a. If everything in the independent variables is considered non-existent then financial distress (Y) is 0.307.
b. If there is an increase in WCTA of 1, then financial distress (Y) will increase by 0.021.This means that partially WCTA has a positive effect on*financial distress*.
c. If there is an increase in RETA of 1, then financial distress (Y) will increase by 0.169.This means that RETA has a partial positive effect on*financial distress*.
d. If there is an increase in EBITTA of 1, then financial distress (Y) will increase by 0.046.This means that partially EBITTA has a positive effect on*financial distress*.
e. If there is an increase in STA by 1, then financial distress (Y) will increase by 0.211.This means that STA partially has a positive effect on*financial distress*.

5. Hypothesis testing

a. Simultaneous Significant Test (F Test)

The F test is carried out to find out how the independent variable influences the dependent variable simultaneously.

Table 8 Simultaneous Test

ANOVAb

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3,101	4	,775	3,652	.011a
	Residual	11,039	52	,212		
	Total	14,140	56			

a. Predictors: (Constant), STA, EBITTA, WCTA, RETA

b. Dependent Variable: Financial Distress

Based on table 8 F test calculations, it can be seen that the calculated F value is 3.652 > Ftable 2.55, with a significance of 0.006 < 0.05. This shows that all independent variables vizWCTA, RETA, EBITTA and STAsimultaneouslysignificant effect on *financial distress*.

b. Partial Significant Test (t Test)

A partial test (t test) is carried out to find out whether the independent variable is partial to the dependent variable.

Table 9 Partial Test

Model		Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error			Tolerance	VIF
1	(Constant)	,307	,082	3,726	,000		
	WCTA	.021	,034	2,627	,042	,629	1,589
	RETA	,169	.143	3,186	.041	,602	3,675
	EBITTA	,046	,042	2,115	,043	,612	4,276
	STA	.211	.104	4,031	,037	,636	1,572

Source: SPSS Processing Results

Based on table 9 to determine the influence of the independent variablesWCTA, RETA, EBITTA and STA-partially on the dependent variable*financial distress*are as follows :

1) WCTA has tcount (2.627) > ttable (2.006) and significant 0.042 < 0.05. This means that partially WCTA has a significant effect on*financial distress*.
2) RETA has tcount (3,186) > ttable (2.006) and significant 0.041 < 0.05. This means that partially RETA has a significant effect on*financial distress*.
3) EBITTA has tcount (2.115) > ttable (2.006) and significant 0.043 < 0.05. This means that partially EBITTA has a significant effect on*financial distress*.
4) STA has tcount (4.031) > ttable (2.006) and significant 0.037 < 0.05. This means that partially STA has a significant effect on*financial distress*.

c. Coefficient of Determination

The coefficient of determination (Adjusted R Square) measures how far the model's ability is to explain variable variationsWCTA, RETA, EBITTA and STAto*financial distress*. The coefficient of determination value is between 0 and 1. An Adjusted R Square value that is close to one means that the research independent variable provides almost all the information needed to predict variations in the variable.*financial distress*. In this study, Adjusted R Square was used, because there was more than one independent variable used in this study. The results of the coefficient of determination can be seen in table 4.8 as follows:

Table 10 Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.668a	,446	,459	.46075

Source: SPSS Processing Results

From table 10 of the coefficient of determination above, it can be seen that the Adjusted R Square value is 0.459. The results of this statistical calculation mean that the ability of the independent variable to explain variations in changes in the dependent variable is 45.9%, while the remaining 54.1% (100% - 45.9%) is explained by other factors outside the regression model being analyzed. The Adjusted R Square value is 0.459, which means that 45.9% of the influence of the independent variable on the dependent variable can be explained by the variables in this research and the rest is explained by other variables not studied.

DISCUSSION

1. Influence *Working Capital to Total Assets* (WCTA) Against *Financial Distress*

Based on data analysis and hypothesis testing that has been carried out in this research, it can be seen that tcount (2.627) > ttable (2.006) and significant 0.042 < 0.05. This means that partially WCTA has a positive and significant effect on*financial distress.* Working Capital to Total Assets is a measure of a company's current assets with its total capitalization (Lakhsan, 2013). This ratio is calculated by dividing working capital by total assets. This ratio shows the company's ability to generate net working capital from all the total assets it owns. This working capital is used to finance company operations or overcome financial difficulties that may occur. Large working capital shows that the company is able to carry out company operations, so that it will reduce the occurrence of financial distress.

Pasaribu's research in 2008 used 34 financial ratios and binary logistics to predict the Financial Distress of companies listed on the Indonesia Stock Exchange. The results state that the ratio of Working Capital to Total Assets has a significant effect in predicting a company's Financial Distress condition. Another research was conducted by Lakhsan (2013) who examined 70 distressed and non-distressed companies each and used logistic regression analysis. The results state that this ratio has the power to predict a company's Financial Distress condition. Alifiah (2013) conducted research on trade and service sector companies in Malaysia. The dependent variable used is a company experiencing financial distress and the independent variables are several financial ratios and macroeconomic variables. The data analysis tool used is logistic regression. The results show that the Working Capital Ratio has a negative and significant influence on the company's Financial Distress condition. This means that service and trade sector companies in Malaysia with a high Working Capital ratio are less likely to experience Financial Distress. Based on this explanation, the results of Alifiah's (2013) research state that Working Capital to Total Assets (WCTA) has a negative effect on the probability of a company's Financial Distress.

2. Influence *Retained Earnings to Total Assets* (RETA) To *Financial Distress*

Based on data analysis and hypothesis testing that has been carried out in this research, it can be seen that tcount (3.186) > ttable (2.006) and significant 0.041 < 0.05. This means that RETA partially has a positive and significant effect on*financial distress.* Baimwera (2014) examined the factors that form a company's Financial Distress using Liquidity, Leverage, Profitability and Growth ratios. This research uses regression analysis to examine the nature of the relationship between a company's Financial Distress factors and Financial Distress itself. The result is that this growth ratio has a negative and significant influence in predicting Financial Distress conditions. Research conducted by Altman in 1968 stated that this ratio had a significant negative effect, meaning that the higher this ratio, the lower the possibility of financial distress for the company. Based on this explanation, it can be stated that Retained Earnings to Total Assets (RETA) has a negative effect on the probability of a company's Financial Distress.

3. Influence EBIT to Total Assets (EBITTA) To *Financial Distress*

Based on data analysis and hypothesis testing that has been carried out in this research, it can be seen that tcount (2.115) > ttable (2.006) and significant 0.043 < 0.05. This means that partially EBITTA has a positive and significant effect on*financial distress.* Fitriyah and Hariyati's research in 2013 analyzed the influence of Liquidity, Profitability and Leverage on the Financial Distress conditions of property and real estate companies using logistic regression. The results state that the Profitability ratio represented by EBITTA has a negative and significant effect on the company's Financial Distress condition. Baimwera (2014) also examined the factors forming a company's Financial Distress using Liquidity, Leverage, Profitability and Growth ratios. This research uses regression analysis to examine the nature of the relationship between a company's Financial Distress factors and Financial Distress itself. The results state that the Profitability ratio has a significant negative influence in predicting Financial Distress conditions.

4. Influence *Sales to Total Assets* (STA) To *Financial Distress*

Based on data analysis and hypothesis testing that has been carried out in this research, it can be seen that tcount (4.031) > ttable (2.006) and significant 0.037 < 0.05. This means that STA partially has a positive and significant effect on*financial distress.* This ratio is a measure of the effectiveness of asset utilization in generating sales. The higher the turnover rate, the more effectively the company utilizes its assets. A high ratio indicates that the company uses its assets efficiently to increase sales, and vice versa. Financial performance and profitability fo-

cuses on sales revenue. This ratio measures management's ability to manage its assets so that it can increase sales. Research conducted by Maulana (2010) states that this ratio has a negative and significant effect in predicting a company's Financial Distress condition. A negative relationship can be concluded because the lower the company's ability to use its assets to increase sales, the higher the possibility of the company experiencing Financial Distress.

5. Managerial Implications

The implication of this research is that having sufficient working capital is very important for a company because with sufficient working capital it is possible for the company to operate as economically as possible and the company does not experience difficulties or face dangers that may arise due to a crisis or financial chaos. Companies with negative net working capital have a high probability of facing difficulties in paying off their short-term liabilities, because there are not enough current assets to cover these liabilities. So the greater the possibility of the company experiencing financial distress. A cumulative profitability measure that reflects a company's age as well as the company's earnings power. Profitable operations and debt reduction are characterized by companies retaining profits or reinvesting operating profits. Low retained earnings can indicate a bad business year or reduced company life. This ratio is an indicator that shows management efficiency in managing production, sales, administration and other activities. A high ratio indicates that investment is mostly financed from retained earnings rather than external equity and debt. A company that has a high ratio also shows that the company finances its assets through profits so that it does not use large debts. The higher the resulting ratio means the company has high profits to finance its assets and pay dividends, thereby reducing the possibility of financial distress.

The lower the EBITTA ratio value indicates the lower productivity of assets in generating profits. The EBIT to total assets ratio shows the effectiveness of using all assets in generating company sales. The greater the value of this ratio, the more effective the management of all assets owned by the company. Earnings Before Interest and Tax to Total Assets (EBITTA) is one of the profitability ratios. This analysis is used to measure a company's ability to manage its resources effectively which can be seen from the results of its sales and investments. The EBITTA ratio measures whether a company's assets are used rationally to generate profits from its operating activities. If the resulting ratio is high, then the company's assets have been used rationally so that it can reduce the occurrence of Financial Distress. On the other hand, a low EBITTA ratio indicates that the company is likely to experience financial distress. The implication of this research is that this ratio is used to measure management's ability to use assets to generate sales and describe the turnover rate of all company assets. This ratio, which has a positive value, is a sign that the company has a good ability to use assets to generate sales and has a high level of asset turnover.

CONCLUSION

Based on the results of the data analysis that has been carried out, the conclusion that can be drawn from this research is that the Altman Z-Score method which consists of (working capital to total assets, Retained earnings to total assets, EBIT to total assets and Sales to total assets) has a significant effect on the financial distress of state-owned companies listed on the Indonesian Stock Exchange during the Covid-19 pandemic.

SUGGESTION

Based on the results in this research, the author provides suggestions to future researchers as follows:

1. The management of state-owned companies needs to manage capital and assets more carefully and be more selective in the use of necessary costs. On the other hand, company management can pay more attention to the company's financial performance, especially on several financial ratios which in this research are considered capable of differentiating the performance of bankrupt companies from non-bankrupt companies. Likeworking capital to total assets, Retained earnings to total assets, EBIT to total assets and Sales to total assets. so that companies can improve poor financial performance and improve good financial performance.
2. It is recommended that investors as capital owners can find out signals of a company's financial difficulties from analyzing financial reports using financial ratio analysis with analytical methods to assess financial performance so that they can make the right decisions regarding the investment risks that have been made, especially in state-owned companies listed on the IDX.
3. For academics, it is recommended that future research use other models such as the Grover, Springate methods and the observation period in future research should be extended in order to obtain better research results.

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