Financial Distress Analysis Using The Altman Z-Score Method On Food And Beverage Sub-Sector Companies Listed On The Indonesian Stock Exchange For The Period 2015-2020

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Abstract. This study aims to determine the financial distress of a company through the Altman Index using the Altman Z-Score method. The population in this survey is the food and beverage sub sector companies listed on the IDX between 2015 and 2020. The sample for this study consisted of 13 companies through puposive sampling using standard food and beverage companies listed on the IDX and the data in the form of complete financial statements for the period. And the data collection technique is secondary data. While the data analysis method used is descriptive analysis, classical assumption test, and hypothesis testing. The results showed that WCTA, RETA, EBITTA, MVETL, and SATA had a positive and significant effect on the Altman Index in food and beverage companies listed on the Indonesia Stock Exchange for the 2025-2020 period.

Keywords: Financial distress, WCTA, RETA, EBITTA, MVETL, SATA.

1 Introduction

The development of maufacturing in Indonesia has reflected the rapid profitability of the economy and business. The role of the companys condition is indeed very influential on Indonesias economic growth, especially sales productivity, the companys ecosystem, financial problems, income efficiency, and investor profits which can be seen in the financial statement. According to Kasmir (2018), financial statements are reports that show the companys current financial condition or are in a certain period [1].

The manufacturig industry in Indonesia has experienced a major phenomenon, especially the food and beverage for the past two years due to the suppression of the COVID19 pandemic. A number of challenges continue to be pursued to maintain and revive the companys ecosystem during the pandemic and one of the consequences of the pandemic is the weakening of purchasing power due to the limitations of the public in spending needs s well as the imbalance of supply and demand in various countries which causes raw materials costs to continue to soar so that companies experience problems funding constratints in continuing production activities.

Based on information from the Central Statistics Agency, the average GDP growth rate of the food and beverage industry during 2015-2020 was 7.17% and the Ministry of Industry of the Republic of Indonesia noted that the performance of the food and beverage industry in 2015-2019 achieved an average growth of 8.16% exceeding the growth of the non-oil and gas processing industry 4.69%. Even though in the fourth quarter of 2020 the pandemic was suppressed, the food and beverage industry was still able to survive a positive 1.58% growth [2**]**.

The suppression of the pandemic that occurred due to the COVID19 pandemic did not rule out the possibility of the food and beverage sub sector being a weak point, but implementing adaptation and innovation as a form of facing new challenges through improving production processes, overall logistics, marketing strategies, and financial management. In this way, companies that want to maintain the stability and sustainability of the company are required to adapt developments to competition and avoid financial distress. Financial distress is the initial stage before experiencing bankruptcy due to insufficient capital to complete the obligations that should be fulfilled.

In order for companies to recover in the companys ecosystem, a company needs to need a method, namely the Altman Z-Score method as an early notification sign to be used by the company in detecting financial distress conditions and repairing it before the occurrence of real bankruptcy conditions. Based on sample data from 13 food and beverage companies during 2015-2020, it shows that there are 20 financial distress companies, 31 gray area companies, and 27 healthy companies and the financial statements obtained generate stable and positive income. Net income after tax in the financial statements is used as a goal to determine the existence of net income such as the main business (net operating system) and outside the main business (non operating system). That way, food and beverage companies can continue their production operations and those who want to compete must improve their productivity performance through the development of the Altman method which has been modified as a formula for detecting the potential for

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bankruptcy of a company by applying MDA (Multiple Discriminant Analysis), namely statistics that are able to interpret the Altman index through ratios that include WCTA (X1), RETA (X2), EBITTA (X3), MVETL (X4), and SATA (X5). WCTA is an indicator of the companys liquidity ratio in measuring the amount of current assets with a ratio of total assets. RETA is an indicator of profitability in managing company activities through a comparison of retained earnings to total assets where retained earnings are not part of dividends. EBITTA is an indicator of profitability in obtaining the value of the assets profit before interest and tax payments are made. MVETL is an indicator of solvency in fulfilling obligations through capital in increasing the profit value of investors and external parties, and SATA is an indicator of activity as an increase in sales volume and earning company profits.

Basically the company was founded to make a profit, but the company needs to pay attention to these indicators and this can explain if the conditions of WCTA, RETA, EBITTA, MVETL, and SATA are getting better, then a company can have an influence on the results of the Altman index that moves up so that it can indicates a company avoids the occurence of financial distress with a low level. With various conditions that have been passed in the past few years where the food and beverage sub sector needs to prepare for an environmentally friendly transition in order for Indonesia's economic growth to continue to rise and companies do not experience a prolonged slump. The strategies that can be implemented are developing food estates, expanding cold storage, and selecting cold chains with the aim of building prosperity and economic recovery in Indonesia after the COVID19 pandemic so as to provide improved economic conditions and encourage companies to rise up and adapt through new strategies and innovations that can provide good influence on the companys financial statements to be utilized by stakeholders such as management, company owners, investors, creditors, and others to find out and provide important information related to the companys condition in the current period aimed at building good and benefical cooperation between various parties [3].

The study aims to determine the condition of the companys financial distress through the measurement of the variables WCTA, RETA, EBITTA, MVETL, and SATA against the Altman Index in food and beverage companies listed on the Indonesia Stock Exchange for the period 2015-2020 [4].

2 Theoritical Review

2.1 Financial Report

Financial statement are reports that describe and provide information about the companys current financial position for the period [5]. The purpose of this report is to convey information about the companys financial position during a certain period and is very useful in various company activites with stakeholders. The financial statement themselves are periodically prepared and released every period based on need.

2.2 Financial Distress

Financial distress is part liquidation phase due to the weakening of a companys economy caused by the companys inability to fulfill its obligations because its total liabilities are greater than its assets so that the company cannot continue its business activities [6].

2.3 Altman Z-Score Method

This method was first discovered and modified by Altman (1968) as a measurement indicator of predicting company bankruptcy in publicly listed manufacturing companies where the application of the Altman method can be carried out on all companies such as go public manufacturing, non-go public manufacturing, and non-manufacturing. This method is actually applied using MDA (Multiple Discriminant Analysis), namely by interpreting the grouping of ratios as a clear decision-making step.

The equation of the discriminant function of the Altman Method, namely (Munawir,2015) [7] :

$$\mathbf{Z = 1{,}2\ X1 + 1{,}4\ X2 + 3{,}3\ X3 + 0{,}6\ X4 + 1{,}05\ X5}$$

Explanation:

Z = Indeks Altman
X1 = WCTA
X2 = RETA
X3 = EBITTA
X4 = MVETL
X5 = SATA

In the study, the model computed with Eviews10 helped determine the presence of the discriminant function. The calculation of this function produces a score as a measure of the companys health, which is divided into three categories, including:

a. Z > 1,81in the category of financial distress or in the dangerous zone
b. 1,81 < Z < 2,99 gray area category
c. Z > 2,99 healthy category.

In the Altman method there are also financial ratios which are classified into four groups, namely:

2.3.1 Liquidity Ratio as proxy X1

According to Fahmi (2017) the liquidity ratio is an indicator of a companys ability to meet short-term obligations accordinging to their maturity [8]. This ratio is important because if a company goes bankrupt because it is unable to fulfill its obligations, then the value of the company will decrease and investor interest will decrease, thus potentially experiencing financial difficulties. In the study, X1 was represented by WCTA.

2.3.2 Profitability Ratio as proxy for X2 and X3

According to Sartono (2012) the profitability ratio is an indicator that evaluates the ability of a company to generate commercial profits from the amount of assets and capital [9]. This ratio can be used effectively to minimize cost savings so that the company can generate sufficient cash and minimize financial difficulties. In this study, X2 is represented by RETA and X3 is represented by EBITTA.

2.3.3 Solvency Ratio as proxy X4

According to Kasmir (2010) the solvency ratio is an indicator of the companys ability to measure the amount of obligations that must be fulfilled so as not to provide undue risks that can lead to financial distress in the future due to extended obligations [10]. If conditions are not immediately remedied, the impact of financial distress will increase and investors and external parties will decrease. In the study, X4 was represented by MVETL.

2.3.4 Activity Ratio consisting of X5

According to Syamsuddin (2009) the activity ratio is an indicator of the companys ability to increase sales volume depending on the efficiency of the companys assets [11]. This ratio is widely used by the management of a company to find out how effective a company is in managing its operations so that the possibility of financial distress is low. In the study, X5 was represented by SATA.

2.4 Research Hypothesis

H1 : WCTA (X1) has a positive and significant effect on the Altman Index in food and beverage companies listed on the IDX in 2015-2020.

H2 : RETA (X2) has a positive and significant effect on the Altman Index in food and beverage companies listed on the IDX in2015-2020.

H3 : EBITTA (X3) has a positive and significant effect on the Altman Indexs in food and beverage companies listed on the IDX in 2015-2020.

H4 : MVETL (X4) has a positive and significant effect on the Altman Index in food and beverage companies listed on the IDX in 2015-2020.

H5 : SATA (X5) has a positive and significant effect on the Altman Index in food and beverage companies listed on the IDX in 2015-2020.

2.5 Framework of Thinking

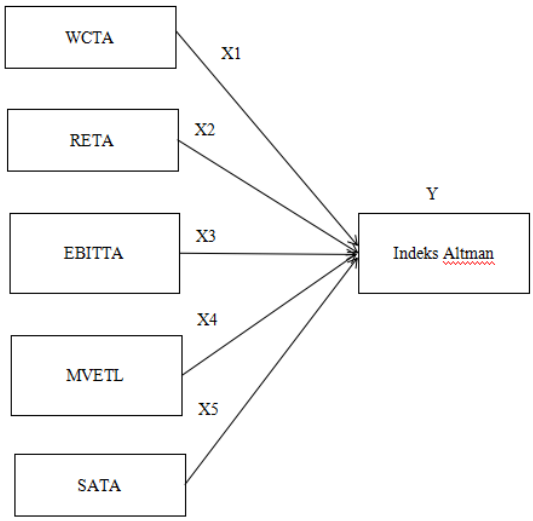


Fig. 1. Framework of Thinking

3 Research Methodology

3.1 Population and Sample

The population is taken from food and beverage companies listed on the Indonesia Stock Exchange in 2015-2020. The sampling technique used is purposive sampling technique which is based on consideration of the selected and appropriate criteria including:

a. Food and beverage companies listed on the Indonesia Stock Exchange from 2015 to 2020.
b. Data collection is based on the companys complete annual financial statements for the research year from 2015 to 2020.

3.2 Types and Sources of Data

Types and sources of research data are quantitative data and secondary data. The data is taken from the companys official website, the Indonesia Stock Exchange, as well as other references such as journals, previous research, and other information.

3.3 Definition of Variable Measurement

The variabel in the research measurement are the Altman Z-Score method through financial ratios including:

3.3.1 WCTA (X1)

According to Wulandari (2018) ECTA is an indicator that measures a companys liquidity ratio by measuring the number of current assets compared to total assets [12]. This ratio is measured from:

$$\frac{\text{Working Capital}}{\text{Total Assets}}$$

This ratio is useful for detecting a companys liquidity problems due to working capital obtained from the reduction of current assets with short term liabilities. If working capital is positive in good condition, this may indicate that the company is in low financial distress.

3.3.2 RETA (X2)

According to Wulandari (2018) RETA is an indicator of profitability in managing company operations through a comparison between retained earnings and total assets when retained earnings are not part of dividends [13]. This ratio is measured from:

$$\frac{\text{Retained Earnings}}{\text{Total Assets}}$$

This ratio is useful for describing how long a business has affected the regularity of a companys profitability in its business activities. The better the ratio, the lower the probability of financial financial problems which is also an index moving up.

3.3.3 EBITTA (X3)

EBITTA is an indicator of profitability in obtaining the value of income from assets before interest and taxes are paid (Wulandari, 2018) [14]. This ratio can be obtained from:

$$\frac{\text{EBIT}}{\text{Total Assets}}$$

EBIT is net income before tax minus income from sales of real estate, other assets, non-productive assets and direct investment shares. The better the ratio, the lower the probability of financial distress which is also an index moving up

3.3.4 MVETL (X4)

MVETL is an indicator of solvency in fulfilling obligations through capital by increasing the value of returns to investors and outsiders. This ratio can be obtained from:

$$\frac{\text{Stock Market Value}}{\text{Total Liability}}$$

Market value is the total number of shares outstanding multiplied by the share price per share of common stock. The better the ratio, the lower the chances of financial distress and this is also the index that moves up.

3.3.5 SATA (X5)

SATA is an indicator of business activity as an increase in sales volume and company profits. This ratio can be obtained from:

$$\frac{\text{Sales}}{\text{Total Assets}}$$

This ratio shows that the company can effectively manage its assets to increase its sales. The better the ratio, the lower the probability of financial distress, which is also a bullish indicator.

4 Data Analysis Techniques

4.1 Descriptive Statistical Test

According to Sugiyono (2013) descriptive statistics is a method used to analyze data by describing the data to make overall decisions based on the highest, lowest, mean, and standard deviation values [15]. Data processing is carried out using the Eviews10 program.

4.2 Classical Assumption Test

4.2.1 Normality Test

Normality test is a test that aims to show whether a regression model is normally distributed [16].

4.2.2 Multicollinearity Test

The multicollinearity testing is a model to test the correlation between independent variables where the regression model in good condition shows that there is no correlation between independent variables [17].

4.2.3 Autocorrelation Test

Autocorrelation testing is a test model that aim to detect the presence or absence of autocorrelation using the Durbin-Watson test [18].

4.2.4 Heteroscedasticity Test

The heteroscedasticity test serves as an experimental model that tests the regression on the presence or absence of variance through the White test and the Breusch Pagen Godrey (BPG) test.

4.3 Hypothesis Test

4.3.1 Multiple Linear Regression Analysis

This regression model acts as a measure of the dependent variable with independent variables related to more than one independent variable to determine the direction and influence of the independent variable on the dependent variable (Ghozali, 2018) [19].

4.3.2 Partial Regression Test (t-Test)

The t-test is used as a partial test to determine the effect between the independent variable and the dependent variable by evaluating the t value at a significant level of 5%.

5 Results and Discussion

5.1 Recap of Altman Z-Score Method

Table 1. Recap of Altman Z-Score Method

Period	Number of Companies		
	Financial Distress	Gray Area	Healthy
2015	3	7	3
2016	2	6	5
2017	3	5	5
2018	5	3	5
2019	4	3	6
2020	3	7	3

Source: Secondary data (2022)

The results of the recap of the Altman Z-Score method can be explained as follows:

a. Data in 2015 showed that there were 3 companies in the financial distress category (ADES, BUDI, and INDF), 7 companies in the grey area category (ICBP, MLBI, MYOR, ROTI, SKBM, SKLT, and STTP), and 3 companies in the healthy catergory (CEKA, DLTA, and ULTJ).

b. Data in 2016 showed that there are 2 companies in the financial distress category (BUDI and INDF), 6 companies in the grey area category (ADES, ICBP, ROTI, SKBM, SKLT, and STTP), and 5 companies in the healthy category (CEKA, DLTA, MLBI, MYOR, and ULTJ).
c. Data in 2017 showed that there are 3 companies in the financial distress category (BUDI, INDF, and ROTI), 5 companies in the grey area category (ADES, ICBP, SKBM, SKLT, and STTP), and 5 companies in the healthy category (CEKA, DLTA, MLBI, MYOR, and ULTJ).
d. Data in 2018 showed that there are 5 companies in the financial distress category (ADES, BUDI, INDF, ROTI, and SKBM), 3 companies in the grey area category (ICBP, SKLT, and STTP), and 5 companies in the healthy category (CEKA, DLTA, MLBI, MYOR, and ULTJ).
e. Data in 2019 showed that there are 4 companies in the financial distress category (, BUDI, INDF, ROTI, and SKBM), 3 companies in the grey area category (ADES, ICBP, and SKLT), and 6 companies in the healthy category (CEKA, DLTA, MLBI, MYOR, STTP and ULTJ).
f. Data in 2020 showed that there are 3 companies in the financial distress category (, BUDI, ICBP, and INDF), 7 companies in the grey area category (ADES, DLTA, MLBI, ROTI, SKBM, SKLT, and ULTJ), and 3 companies in the healthy category (CEKA, MYOR, and STTP).

5.2 Descriptive Statistics

Table 2. Descriptive Statistics

	INDEKS_ALTMAN	WCTA	RETA	EBITTA	MVETL	SATA
Mean	2,691	0,253	0,334	0,154	0,300	1,173
Median	2,691	0,207	0,357	0,138	0,140	1,110
Maximum	5,351	0,796	0,825	0,711	2,318	3,105
Minimum	1,136	-0,241	-0,739	0,000	0,011	0,446
Std. Dev	0,998	0,241	0,311	0,127	0,482	0,552
Skewness	0,517	0,530	-0,959	2,498	2,811	1,635
Kurtosis	2,776	2,861	4,661	10,560	10,560	6,101
Jarque-Bera	3,637	3,715	20,942	247,956	288,452	65,987
Probability	0,162	0,156	0,000	0,000	0,000	0,000
Sum	109,925	19,695	26,027	12,046	23,424	91,472
Sum Sq. Dev.	76,762	4,461	7,452	1,244	17,919	23,428
Observations	78	78	78	78	78	78

Sumber: Eviews10, secondary data (2022)

The results of the recap of the descriptive analysis above can be explained as follows:

a) Altman Index
The maximum value is 5,351 and the minimum value is 1,136. The results showed that the research sample ranged from 1,136 to 5,351 with a mean value of 2,691 and a standard deviation of 0,998.

b) WCTA (X1)
The maximum value is 0,796 and the minimum value is -0,241. The results showed that the research sample ranged from -0,241 to 0,796 with a mean value of 0,253 and a standard deviation of 0,241.

c) RETA (X2)
The maximum value is 0,825 and the minimum value is -0,739. The results showed that the research sample ranged from -0,739 to 0,825 with a mean value of 0,334 and a standard deviation of 0,311.

d) EBITTA (X3)
The maximum value is 0,711 and the minimum value is 0,000. The results showed that the research sample ranged from 0,000 to 0,711 with a mean of 0,154 and a standard deviation of 0,127.

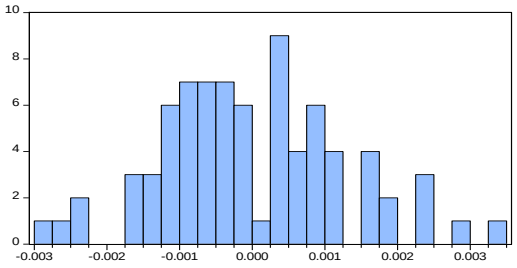
e) MVETL (X4)
The maximum value is 2,318 and the minimum value is 0,011. The results showed that the research sample ranged from 0,011 to 2.318 with a mean value of 0,300 and a standard deviation of 0,482.

f) SATA (X5)

The maximum value is 3,105 and the minimum value is 0,446. The results showed that the research sample ranged from 0,446 to 3,105 with a mean value of 1,173 and a standard deviation of 0,552.

5.3 Classical Assumption Test

5.3.1 Normality Test



Series : Standardized Residuals	
Sample 2015 2020	
Observations 78	
Mean	2,01e-16
Median	-0,000149
Maximum	0,003281
Minimum	-0,002774
Std. Dev.	0,001253
Skewness	0,264084
Kurtosis	2,932398
Jarque-Bera	0,921479
Probability	0,630817

Fig. 2. Normality Test Results

Figure 2 above shows that the standardization of the Jarque-Bera results is 0,921 with a probability value of 0,630, so the assumption states that the data is normally distributed because the J-B probability value is > 0,05.

5.3.2 Multicollinearity Test

Table 3. Multicollinearity Test Results

	WCTA	RETA	EBITTA	MVETL	SATA
WCTA	1,000	0,516	-0,070	0,081	0,032
RETA	0,516	1,000	0,342	-0,596	0,042
EBITTA	-0,070	0,342	1,000	-0,131	0,071
MVETL	0,081	-0,596	-0,131	1,000	-0,017
SATA	0,032	0,042	0,071	-0,017	1,000

Source: Eviews10, secondary data (2022)

Table 3 above shows that the regression model does not have symptoms of multicollinearity because the correlation between independent variables is less than 90%.

5.3.3 Autocorrelation Test

Table 4. Autocorrelation Test Results

R-squared	0,999	Mean dependent var	2,691
Adjusted R-squared	0,999	S.D. dependent var	0,998
S.E. ofregression	0,001	Akaike info criterion	-10,386
Sum squared resid	0,000	Schwarz criterion	-10,205
Log likelihood	411,06	Hannan-Quinn criter	-10,314
F-statistic	9149216,	Durbin-Watson stat	2,442
Prob(F-statistic)	0,000		

Source: Eviews10, secondary data (2022)

Based on the results above, Durbin-Watson is 2,442 with n=78 and k=5 obtained from the value of dL=1,4991 and dU=1,7708, so it can be concluded that this model does not have autocorrelation because it is classofoed as dU < dw < 4 -dL is 1,7708 < 2,442 < 2,501.

5.3.4 Heteroscedasticity Test

Table 5. Heteroscedasticity Test Results

Heteroscedasticity Test: White

F-statistic	1,684	Prob. F(20,57)	0,0642
Obs*R-squared	28,970	Prob. Chi-Square(20)	0,0884
Scales explained SS	23,850	Prob. Chi-Square(20)	0,2490

Heteroscedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1,378	Prob. F(5,72)	0,2427
Obs*R-squared	6,812	Prob. Chi-Square(5)	0,2350
Scales explained SS	5,608	Prob. Chi-Square(5)	0,3462

Source: Eviews10, secondary data (2022)

Based on the results above, there is a prob.chi-square value in the white test of 0,0884 > 0,05 and the BPG test of 0,2350 > 0,05 so that it can be concluded that this model does not occur heterocedasticity and does not produce changes in variance.

5.4 Hypothesis Test

5.4.1 Multiple Linear Regression Analysis

Table 6. Chow Test Results

Redundant Fixed Effects Tests
Equation : CHOW
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0,619491	(12,60)	0,8173
Cross-section Chi-square	9,110649	12	0,6935

Source: Eviews10, secondary data (2022)

Based on the results above, there is a prob.chi-square of 0,6935 > 0,05, so it can be concluded that the model used in the study is Common Effect Models (CEM).

Table 7. Multiple Linear Regression Analysis Results

Dependent Variable : INDEKS_ALTMAN
Method : Panel Least Squares
Date : 03/31/22 Time : 21:18
Sample : 2015 2020
Periods included : 6
Cross-sections included : 13
Total panel (balanced) observations : 78

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0,001	0,000	1,844	0,069
WCTA	1,200	0,001	1243,42	0,000
RETA	1,399	0,001	1427,66	0,000

EBITTA	3,298	0,001	2383,59	0,000
MVETL	0,599	0,000	1220,02	0,000
SATA	1,050	0,000	3909,27	0,000

R-squared	0,999	Mean dependent var	2,691
Adjusted R-squared	0,999	S.D. dependent var	0,998
S.E. of regression	0,001	Akaike info criterion	-10,386
Sum squared resid	0,000	Schwarz criterion	-10,205
Log likelihood	411,06	Hannan-Quinn criter	-10,314
F-statistic	9149216,	Durbin-Watson stat	2,442
Prob(F-statistic)	0,000		

Source: Eviews10, secondary data (2022)

Based on the results of multiple linear regression analysis, it can be seen that the multilpe linear regression equation is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

$$Y = 0{,}001 + 1{,}200WCTA + 1{,}399RETA + 3{,}298EBITTA + 0{,}599MVETL + 1{,}050SATA + \varepsilon$$

5.4.2 t-Test

Table 8. t-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0,001	0,000	1,844	0,069
WCTA	1,200	0,001	1243,42	0,000
RETA	1,399	0,001	1427,66	0,000
EBITTA	3,298	0,001	2383,59	0,000
MVETL	0,599	0,000	1220,02	0,000
SATA	1,050	0,000	3909,27	0,000

Source: Eviews10, secondary data (2022)

Based on the results the ttest on each independent variable, it can be explained as follows:

a. WCTA (X1)
The WCTA t-count is 1243,42 > t-table 1,99 with a significant probability of 0,000 < 0,05. This shows that WCTA has a positive and significant effect on the Altman Index in food and beverage companies in 2015-2020 and the hypothesis is accepted.

b. RETA (X2)
The RETA t-count is 1427,66 > t-table 1,99 with a significant probability of 0,000 < 0,05. This shows that RETA has a positive and significant effect on the Altman Index in food and beverage companies in 2015-2020 and the hypothesis is accepted.

c. EBITTA (X3)
The EBITTA t-count is 2383,59 > t-table 1,99 with a significant probability of 0,000 < 0,05. This shows that EBITTA has a positive and significant effect on the Altman Index in food and beverage companies in 2015-2020 and the hypothesis is accepted.

d. MVETL (X4)
The MVETL t-count is 1220,02 > t-table 1,99 with a significant probability of 0,000 < 0,05. This shows that WCTA has a positive and significant effect on the Altman Index in food and beverage companies in 2015-2020 and the hypothesis is accepted.

e. SATA (X5)
The SATA t-count is 3909,27 > t-table 1,99 with a significant probability of 0,000 < 0,05. This shows that WCTA has a positive and significant effect on the Altman Index in food and beverage companies in 2015-2020 and the hypothesis is accepted.

6 Cover

6.1 Conclusion

Based on the explanation of the research and discussion, it can be concluded that WCTA, RETA, EBITTA, MVETL, and SATA has a positive and significant effect on the Altman Index on food and beverage companies listed on the Indonesia Stock Exchange in 2015-2020. The value of r-squared produces 99%, meaning that it can be explained by the independent variable. Overall, it shows that food and beverage companies listed on the Indonesia Stock Exchange in 2015-2020 are in the gray area category.

6.2 Suggestions

Based on the results of the stuudy, food and beverage companies listed on the Indonesia Stock Exchange in 2015-2020 are included in the gray area category. Therefore, the company needs to make a trasition as development progresses by increasing sales volume even though the past few years have been under pressure due to the impact of the COVID19 pandemic and it is possible for the company to rise and continue operational activities, one of which is through new strategies and innovations such as food estate development, expansion cold storage, as well as the selection of cold chains with the aim of having a good influence on the companys environment and the condition of the companys financial statements that can be utilized by stakeholders in building good cooperation while maintaining the stability of company management and company performance in order to avoid financial difficulties for the company.

Then investors are expected to always pay attention and consider in determining the company to be chosen to minimize the risk of investing and continue to pay attention to the companys financial statements for at least the past 5 years as a selection consideration.

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