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EFFECT OF PROFITABILITY, LEVERAGE AND LIQUIDITY AGAINST FINANCIAL DISTRESS (CASE STUDY OF FOOD SUBSECTOR MANUFACTURING COMPANY AND BEVERAGE LISTED ON IDX FOR THE 2018-2022 PERIOD

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Abstract
The purpose of this study is to determine the impact of profitability (X1), leverage (X2), and liquidity (X3) on financial distress (Y) in food and beverage (F&B) companies on the Indonesia Stock Exchange (IDX) during the 2018-2022 period. Profitability (X1) is measured by ROA, leverage (X2) using DAR and liquidity (X3) by CR value. This research uses quantitative methodology with the population of food & beverage companies that have been listed on the Indonesia Stock Exchange from 2018 to 2022. The sampling procedure used a purposive sampling strategy and resulted in a total of 16 food and beverage companies as research samples. Data analysis using multiple linear regression models. The findings of this research show that the financial distress (Y) experienced by food and beverage manufacturing companies in the 2018-2022 period was significantly influenced by profitability (X1), leverage (X2) and liquidity (X3) positively.

Keywords: Profitability, Leverage, Liquidity, Financial Distress

1. Introduction

The rapid and rapid development of globalization, as a result of which the company is required to have the ability to outperform its competitors in order to dominate the market, both domestically and internationally. Increased competition between corporations has caused an increase in costs borne by the company, which has an impact on the company's performance. If the company is unable to compete, then the company will experience losses which can eventually cause financial distress. Failure to overcome the company's financial problems can result in bankruptcy (Ayu et al., 2017).

Financial distress itself is a scenario where the company experiences financial difficulties before going out of business. Financial problems refer to circumstances in which a company experiences a crisis and experiences a slump before being declared bankrupt or undergoing liquidation. A company is said to be bankrupt if its long-term expenses exceed the rate of return it generates. Companies that experience financial difficulties have a significant influence not only on their own operations but also on the environment around them, especially their workers, which causes layoffs that are not in accordance with the rules for their employees. Financial crises sometimes pose liquidity challenges for organizations, as seen by their reduced capacity to meet their commitments to creditors. PT Tri Banyan Tirta Tbk (ALTO), a mineral water company, experienced financial challenges in the first quarter of 2018 which resulted in a net loss of Rp. 13.41 billion. The current loss increased compared to the net loss of Rp. 2.13 billion occurred in the same period in 2017. The main factor contributing to the large net loss was a decrease in revenue coupled with an increase in operating expenses. In 2018, the company

experienced a decrease in revenue by 2.66% amounting to Rp. 60.44 billion. In addition, "the company's liabilities increased 1.54% to Rp. 700.72 billion compared to the previous year's liabilities of Rp. 690.099 billion. Furthermore, the company's assets decreased 1.54% to Rp. 1,106 trillion compared to the previous year's assets of Rp. 1,109 trillion (cnbcindonesia), (Rahma & Dillak, 2021), (Yohanson, 2020), (Hanifah et al., 2013)

Several studies have been conducted to identify the factors that contribute to the onset of financial distress. Various methods can be used to determine whether a company is experiencing financial distress or not. The research shows that "financial distress is influenced by a variety of metrics, including activity ratio, profitability ratio, growth ratio, and leverage ratio". states that indicators of financial hardship include the size of the company, its leverage, and liquidity. The researcher was interested in the above explanation of the determinants of financial difficulty, so the researcher focused the investigation on the utilization of profitability, leverage, and liquidity variables. (Simanjuntak et al., 2017), (Mappadang et al., 2019)

2. Theoretical Background

2.1 Signaling Theory

Signal theory explains the use of financial statements as a means to convey both favorable signals (displaying positive news) and unfavorable signals (displaying negative news). The signal form refers to the specific structure and content that management has implemented to meet the wishes of the owner. Signal theory can be used by companies, investors, and other entities to reduce information asymmetry through the creation of reliable financial reporting. Financial statements are very important for any organization because they provide insight into the company's financial performance and health, thus enabling the prediction of potential bankruptcy. The relationship between signaling theory and financial distress depends on the analysis of the company's financial statements to ascertain the company's financial capacity and condition. This analysis allows the determination of whether the company is experiencing financial difficulties or not (Sutra and Mais, 2019).

2.2 Financial Distress

Financial distress is the condition of a company unable to fulfill its responsibilities, especially those that are short-term such as liquidity and solvency (Kristanti, 2019). A company's demonstration of declining financial conditions might erode the confidence of creditors, owners, and other stakeholders.

In this study, financial distress was measured using the Altman Z-Score Revised model. The Altman model is a statistical methodology used to estimate a company's bankruptcy. The enhanced Altman Z-Score model was developed to expand the applicability of this predictive model beyond manufacturing businesses undergoing initial public offerings, including companies that also did not conduct IPOs. "In order for the Z-Score to be used in non-public companies, in this first model, Altman changed the X4 formula from market value of equity/book value of debt to book value of equity/book value of total liabilities." The Z-Score analysis for Altman first generated in 1968 and the Revised Z-Score analysis was made in 1984. The following criteria distinguish companies that experience financial distress from those that do not, as determined by the Revised Altman Z-Score model (Hastuti, 2015):

1) The Z value of < 1.23 of the company is said to be financial distress.
2) The Z value is between 1.23 to 2.9, so the company is said to be gray area.
3) The Z value of > out of 2.9 companies is not said to be financial distress.

The Altman Z-Score Revised formula used is as follows:
"Z-Score = 0.717Z1 + 0.847Z2 + 3.107Z3 + 0.420Z4 + 0.998Z5"

2.3 Profitability

Profitability refers to a company's capacity to create profits through its business operations. This text outlines the efficacy of the company's management in resource allocation, cost management, and revenue optimization (Keramidou et al., 2013), (Sitorus & Silaban, 2023).

The measurement of profitability in this research is ROA. The ROA assessment offers a comprehensive evaluation of the company's capacity to generate profits using all of its assets. The company's high profitability will reflect the company's good prospects and allow the company to avoid financial distress. The formula (X1) used is as follows:
"Return on Assets = Net Profit/Total Assets x 100%"

2.4 Leverage

Leverage is a ratio that measures a company's ability to settle debt and measures the amount of assets financed by debt. Utilizing leverage can magnify the company's profit potential, but also poses possible dangers associated with interest expense and debt obligations. Effective leverage management is essential because the option to use large amounts of debt can increase an organization's likelihood of facing financial turmoil. Therefore, it is important for the company's management to carefully evaluate the extent to which leverage will be used in the company's business plan (Sitorus & Silaban, 2023), (Fransiska and Nilwan, 2023)

Leverage in this study is measured using the Debt to Assets Ratio. This formula describes the ratio of total liabilities to total assets, or rather the proportion of assets funded through debt. The formula used for leverage is as follows:
"Debt to Asset Ratio = Total Debt/Total Assets x 100%"

2.5 Liquidity

Liquidity is a financial metric that measures a company's ability to settle its short-term financial obligations, often those that mature within a year. The company's liquidity can be shown by the size of current assets, such as cash, securities, and stocks.

Current Ratio (CR) was used as a metric to measure liquidity in this study. CR is useful for evaluating a company's liquidity, especially its capacity to meet its short-term financial obligations. The company's greater level of liquidity is directly correlated with the company's higher level of capacity to meet its short-term commitments effectively, thus preventing financial difficulties. The higher the liquidity, the more efficient the company is in generating profits, thus having a positive influence on its overall value. The formula used to calculate liquidity is as follows:
"Current Ratio = Current Assets/Current Debt x 100%"

2.6 Hypothesis Formulation

1) H1: (X1) has a significant negative effect on financial distress.
2) H2: (X2) has a significant positive effect on financial distress.
3) H3: (X3) has a significant negative effect on financial distress.

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From the formulation of the hypothesis above, the framework of thought in this research is as follows:

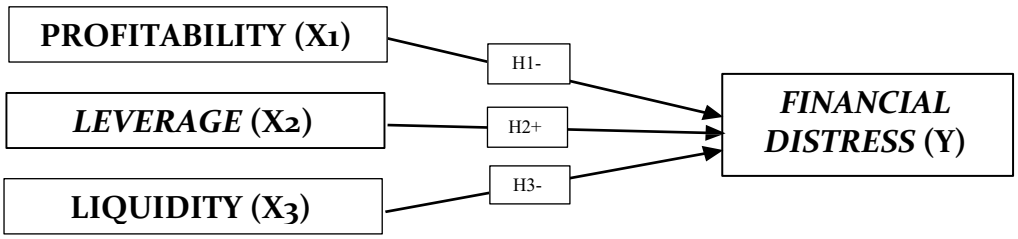

Figure 1. Frame of Mind

Table 1. Previous Research

No	Nama Peneliti (Tahun)	Populasi dan Sampel	Metode Analisis	Variabel yang Diteliti	Hasil Penelitian
1	Oktavianti et. al. (2020)	Subsektor Pertambangan (2015-2018) di BEI. Teknik *purposive sampling* sebanyak 10 perusahaan	Regresi Linear Berganda	Likuiditas	Likuiditas berpengaruh negatif pada *financial distress*
2	Kurniasanti dan Musdholifah (2019)	Subsektor Pertambangan (2012-2016) di BEI. Teknik *purposive sampling* sebanyak 17 perusahaan	Regresi Logistik	Profitabilitas	Profitabilitas berpengaruh negatif pada *financial distress*
3	Putri dan Erinos (2020)	Perusahaan Ritel (2016-2018) di BEI. Teknik *purposive sampling* sebanyak 19 perusahaan	Regresi Logistik	*Leverage*	*Leverage* berpengaruh positif pada *financial distress*
4	Dewi et. al. (2019)	Perusahaan Manufaktur (2015-2017) di BEI. Teknik *purposive sampling* sebanyak 79 perusahaan	Regresi Logistik	Likuiditas	Likuiditas berpengaruh negatif pada *financial distress*
5	Nukmaningtyas dan Worokinasih 2019)	Perusahaan Manufaktur Aneka Industri di BEI (2013-2016). Teknik *purposive sampling* sebanyak 38 perusahaan	Regresi Logistik	Profitabilitas	Profitabilitas berpengaruh negatif pada *financial distress*
6	Masita dan Purwohandoko (2020)	Subsektor Perdagangan, Jasa dan Investasi (2015-2018) di BEI. Teknik *purposive sampling* sebanyak 15 perusahaan	Regresi Logistik	*Leverage*	*Leverage* berpengaruh positif pada *financial distress*

3. Methods

This research uses quantitative techniques. Quantitative methods allow the use of statistical testing tools to perform calculations and draw conclusions from the analyzed debates (Sugiyono 2018).

The data used is secondary data. Secondary data collection includes the use of existing materials, which can be obtained either directly or indirectly from the original source. The scope of this research includes F&B companies listed on the IDX between 2018 and 2022, their financial data obtained through www.idnfinancial.co.id and www.idx.co.id.

The sample selection approach uses purposive sampling to identify specific samples drawn from the entire population. This is done to ensure that the data collected is intended for research purposes and can be accurately compared with previous research findings. The following research sample selection criteria are determined from the procedure below:

1) The Company is listed on the IDX.
2) Financial statements for 2018-2022.
3) Financial data in Rupiah.
4) Companies experiencing financial difficulties.

From the above criteria, it resulted in 16 companies listed on the IDX to be sampled in this research.

Table 2. Sampled companies

NO	Kode Saham	Nama Perusahaan
1	MLBI	PT Multi Bintang Indonesia Tbk
2	ADES	PT Akasha Wira International Tbk
3	DLTA	PT Delta Djakarta Tbk
4	ALTO	PT Tri Banyan Tirta Tbk
5	ICBP	PT Indofood CBP Sukses Makmur Tbk
6	INDF	PT Indofood Sukses Makmur Tbk
7	MYOR	PT Mayora Indah Tbk
8	ULTJ	PT Ultra Jaya Milk Industry & Trading Company Tbk
9	STTP	PT Siantar Top Tbk
10	ROTI	PT Nippon Indosari Corpindo Tbk
11	SKLT	PT Sekar Laut Tbk
12	CEKA	PT Wilmar Cahaya Indonesia Tbk
13	BUDI	PT Budi Strach & Sweetner Tbk
14	SKBM	PT Sekar Bumi Tbk
15	AISA	PT FKS Food Sejahtera Tbk
16	PSDN	PT Prashida Aneka Niaga Tbk

This research uses multiple linear regression analysis. Multiple linear regression analysis is used to determine the magnitude and direction of influence of the independent variable on the dependent variable. This research uses financial distress (Y) as the dependent variable and profitability (X1), leverage (X2), and liquidity (X3) as independent factors. This research uses Statistical Product and Service Solution (SPSS) software application for data analysis (Ghozali, 2016).

4. Results and Discussion

4.1 Descriptive Statistics

This statistic aims to provide an overview of the overall data used in this study.

Table 3. Descriptive Statistical Results

	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	80	-.12	.86	.1008	.09003
Leverage	80	.10	2.90	.4820	.37082
Liquidity	80	.15	9.95	2.3477	1.88429
Financial Distress	80	-1.30	9.08	2.6964	1.64847
Valid N (listwise)	80				

Source: Data processed SPSS 2023

Referring to the results of descriptive statistics can be assessed, among others:

1) Profitability with a total number of samples (N) of 80 samples has a minimum value of -0.12, a maximum value of 0.86, a mean value of 0.1008 and a standard deviation of 0.09003.
2) Leverage with the number of samples (N) of 80 samples has a minimum value of 0.10, a maximum value of 2.90, a mean value of 0.4820 and a standard deviation of 0.37082.
3) Liquidity with the number of samples (N) of 80 samples has a minimum value of 0.15, a maximum value of 9.95, a mean value of 2.3477 and a standard deviation value of 1.88429.
4) Financial Distress with the number of samples (N) as many as 80 samples with a minimum value of -1.30, a maximum value of 9.08, a mean value of 2.6964 and a standard deviation value of 1.64847.

4.2 Multicollinearity Test

This test aims to determine whether there is a correlation between independent variables.

Table 4. Multicollinearity Test Results

COEFFICIENTS[a]								
No	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.595	.251		6.350	.000		
	Likuiditas	3.619	.638	.307	5.673	.000	.964	1.038
	Profitabilitas	1.151	.285	.259	4.039	.000	.689	1.452
	Leverage	.550	.057	.629	9.710	.000	.675	1.480
Dependent Variable: Financial Distress								

Source: Data processed SPSS 2023

The multicollinearity test in table 4 yields a tolerance of 0.964 and a VIF of 1.038 for the variable (X3). (X1) has a tolerance of 0.689 and a VIF of 1.452, while (X2) of 0.675 and 1.480. From the tolerance value of each independent variable > 0.1 and the value of VIF < 10, it can be concluded that there is no multicollinearity between variables in this research regression model.

4.3 Autocorrelation Test

This test determines whether the confounding errors of the linear regression model in period t and period t-1 correlate.

Table 5. Autocorrelation Test

Model Summary[a]					
Model	R	R Square	Adjusted R Square	Std. Error of the Extimate	Durbin-Watson
1	.886[a]	.785	.776	.77945	1.765
Predictors: (Constant), Leverage, Profitabilitas, Likuiditas					
Dependent Variable: Financial Distress					

Source: Data processed SPSS 2023

Table 6. Durbin-Watson Test Bound

K=3			
N	Dl	Du	4-dU
80	1.5600	1.7153	2.2847

Source: Data processed SPSS 2023

From the results of the autocorrelation test in table 6 above, the Durbin Watson (d) value is 1.765. The Durbin-Watson table shows that with 80 samples and 3 independent variables, a dU value of 1.7153 was obtained. Because dU (1.7153) < 1.765 < 4-dU (2.2847). Thus, the regression model in this study is not autocorrelated.

4.4 Heteroscedasticity Test

The purpose of this test is to determine whether there is heteroscedasticity in regression model residues at different observations.

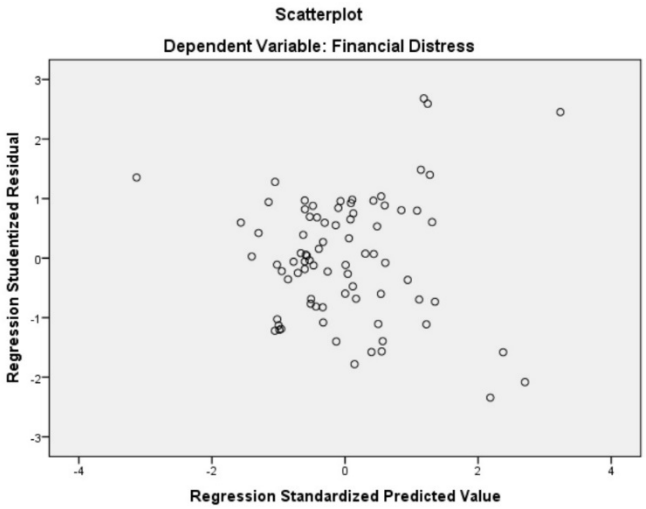

Figure 2. Scaatterplot Graph

Figure 2 above shows that the points around the value 0 on the Y axis are scattered in many directions, including right, left, up, down, and up the value 0 on the Y axis. Therefore, it can be concluded that there is no heteroscedasticity in this regression model.

4.5 Normality Test

The purpose of the normality test is to determine whether the residual or confounding variables in a regression model follow a normal distribution.

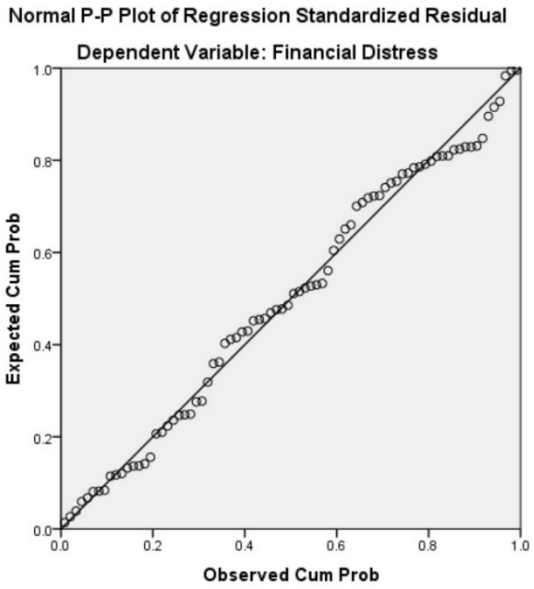

Figure 3. Normality Probability Plot

Figure 3 depicts a normal probability plot (Normal P-P Plot) showing a pattern tightly attached to a diagonal line, showing that the distribution of data is quite close to normal. The regression model in this study satisfies the assumption of normality because the data is normally distributed.

4.6 Multiple Linear Regression Analysis

This research uses multiple linear regression analysis to forecast the state (up or down) of the variable (Y) by manipulating the predictor components (X1), (X2), and (X3), specifically by increasing or decreasing their values.

Table 7. Multiple Linear Regression Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.595	.251		6.350	.000
	Profitabilitas	3.619	.638	.307	5.673	.000
	Leverage	1.151	.285	.259	4.039	.000
	Likuiditas	.550	.057	.629	9.710	.000
a. Dependent Variable: Financial Distress						

Source: Data processed SPSS 2023

The multiple linear regression above displays a constant of 1.595, a regression coefficient of 3.619 for the variable (X1) calculated using ROA, 1.151 for (X2) calculated using the Debt to Asset Ratio, and 0.550 for (X3) calculated using CR. After these calculations, the regression model can be given as the following regression equation:

1) $FD = \alpha + \beta 1PRO + \beta 2LEV + \beta 3LIK + e$
2) $FD = 1.595 + 3.619\ PRO + 1.151\ LEV + 0.550\ LIK + e$

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From the findings of the regression equation can be concluded the value of the constant is 1.595. This means that when variables (X1), (X2), and (X3) are 0, the value of (Y) is 1.595. The PRO variable has a value of 3.619. This shows that every increase of one unit in the variable (X1) then the financial difficulty variable will increase by 3.619 units. The variable LEV has a value of 1.151 which shows that an increase in LEV by one unit will result in an increase in the variable financial difficulty of 1.151. The LIK variable has a value of 0.550, meaning that an increase in the variable (X3) by one unit will result in an increase in the financial difficulty variable by 0.550.

4.7 Hypothesis Testing

4.7.1 Test F (Simultaneous Test)

This research uses the F statistical test to determine whether the independent factor affects the dependent variable simultaneously

Table 8. F Test Results

ANOVA[a]						
Model		Surn of Squares	df	Mean Square	F	Sig.
1	Regression	168.505	3	56.168	92.453	.000
	Residual	46.173	76	.608		
	Total	214.678	79			
a. Dependent Variable: Financial Distress						
b. Predictors: (Constant), Profitabilitas, Leverage, Likuiditas						

Source: Data processed SPSS 2023

From the results of the ANOVA test or F Test above, a Fcalculate value of 92.453 > Ftable 2.72 was obtained with a significant value of 0.000 < 0.05. So, it is concluded that each variable (X) has a significant effect on (Y).

4.7.2 Test t (Partial Test)

The statistical test t shows how (X1), (X2), and (X3) affect (Y) individually/partially (Ghozali, 2016:97).

Table 9. Test Results t

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.595	.251		6.350	.000
	Profitabilitas	3.619	.638	.307	5.673	.000
	Leverage	1.151	.285	.259	4.039	.000
	Likuiditas	.550	.057	.629	9.710	.000
a. Dependent Variable: Financial Distress						

Source: Data processed SPSS 2023

Table 9 of the t-test findings shows that (X1) has a coefficient value of 3.619 and a tcount of 5.673 with a significance level of 0.000 (< of 0.05). It means (H1) is not accepted. From the t-test table, it can be concluded that (X1) has a statistically significant effect on financial difficulties. Furthermore, the variable (X2) has a coefficient value of 1.151, a calculated value of 4.039, and a significance level of 0.000 (< 0.05). Therefore, H1 is approved. From the t-test table, it can be concluded that (X2) has a statistically significant effect on financial difficulties. The value of the coefficient (X3) of 0.550

displays a positive relationship. The calculated value (X3) is 9.710 with a significance level of 0.000 (< of 0.05), so (H1) is not accepted. Statistically (X3) has a significant influence on financial difficulties.

4.7.3 Coefficient of Determination (Adjusted R)

Table 10. Coefficient of Determination Test Results

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.886	.785	.776	.77945	1.765
a. Predictors: (Constant), Profitabilitas, Leverage, Likuiditas					
b. Dependent Variable: Financial Distress					

Source: Data processed SPSS 2023

Table 10 yields an Adjusted R Square (R2) value of 0.776 which shows that (X1), (X2), and (X3) account for 77.6% of (Y). Other factors outside the research model influenced 22.4% of the dependent variables.

4.8 Discussion of Research Results

4.8.1 The Effect of Profitability on Financial Distress

The findings of multiple linear regression analysis show that (X1) has a significant positive influence on (Y), with a coefficient of 3.619. The t-test analysis shows (X1) has a considerable positive influence on (Y) which is indicated by a calculated value of 5.673 and a significant value of 0.000 < 0.005. This research shows a negative correlation between the ratio (X1) of a company and the possibility of financial difficulties. Which means if (X1) a company is high, the possibility of the company can experience greater financial difficulties, on the other hand, if (X1) is low, the possibility of financial difficulties in the company is smaller. This is because a high ROA value can mean that the value of the company's assets is smaller than the profit obtained, so that part of the profit is the result of using the company's debt. This research contradicts the findings of Kurniasanti and Musdholifah (2019) and Nukmaningtyas and Worokinasih (2019) that (X1) has a negative impact on (Y), but this research is in line with the findings of Christine (2019) and Asfali (2019).

4.8.2 The Effect of Leverage on Financial Distress

Leverage has a positive effect on (Y) of 1.151 according to the results of multiple linear regression analysis. The t-test analysis shows (Y) is positively and significantly influenced by (X2) as evidenced by a tcount of 4.039 and a significant value of 0.000 < 0.005. This research shows that the higher the ratio (X2) of a company can make the company's financial condition depressed because of the many obligations that must be fulfilled, so that companies, especially company management, must pay close attention to the ratio (X2) used, because if not used or managed properly, the company can experience financial difficulties. Thus, we can conclude that the hypothesis that (X2) has a significant positive impact on financial difficulties is valid. This research is in line with the research of Putri Dan Erinos (2020), Masita and Purwohandoko (2020) concluded (X2) has a positive impact on financial difficulties, but is not in line with the research of Yohanson &; Putra, (2020) and Shidiq & Khairunnisa, (2019).

4.8.3 The Effect of Liquidity on Financial Distress

Multiple linear regression analysis showed that (X3) reduced financial stress by 0.550. (X3) has a positive and significant effect on financial difficulties, indicated by a calculated value of 9.710 and a significance value of 0.000 < 0.005. This research found a negative relationship between a company's ratio (X3) and financial difficulties. A higher (X3) ratio features a stronger capacity to meet short-term commitments, thus lowering the risk of financial hardship. This is contrary to Dewi et al. (2019) and Oktavianti et al. (2020) finding that (X3) exacerbates financial difficulties, but is in line with Islamiyatun (2021), Pulungan (2017), and Septiani &; Dana, (2019)

4.8.4 Effects of Profitability, Leverage and Liquidity on Financial Distress

The Fcalculate value of 92.453 > Ftable 2.72 and the significant value of 0.000 < 0.005 in the f test results display all independent variables namely (X1), (X2) and (X3) simultaneously have a significant positive effect on (Y).

5. Conclusion

The results of testing the effect of profitability (X1), leverage (X2), and liquidity (X3) on financial distress (Y) in 16 F&B companies listed on the IDX in 2018-2022 show that profitability (X1), leverage (X2) and liquidity (X3) significantly increase financial difficulty (Y). The result of the coefficient of determination of 0.776 shows that profitability (X1), leverage (X2) and liquidity (X3) have an effect of 77.6% on financial difficulties (Y). From this research, it is expected that the company will pay more attention to (X1), (X2), and (X3) because these variables have a significant influence on (Y), and the company's management can use this research to take corrective action as soon as possible if it sees signs of financial difficulties. Future researchers on financial hardship should be able to add more independent variables that influence it, as well as more companies and research years.

References

Ayu, A. S., Handayani, S. R., &; Topowijono. (2017). Effects of Liquidity, Leverage, Profitability and Company Size on Financial Distress. Journal of Business Administration (JAB), 43(1), 138–147.

Dewi, N. A., Endiana, I. M., &; Arizona, I. E. (2019). Effect of Liquidity Ratio, Leverage Ratio, and Profitability Ratio on Financial Distress.

Fransiska, B., &; Nilwan, A. (2023). The effect of liquidity, working capital turnover, and leverage on the profitability of non-banking state-owned companies listed on the IDX. US EMT Journal, 7(4), 1037–1043.

Ghozali, I. (2016). Application of multivariete analysis with IBM SPSS 23 program.

Hastuti, R. T. (2015). Hastuti: Comparative Analysis of Altman Springate's Financial Distress Prediction Model.... Journal of Economics, XX (03), 446–462.

Hanifah (2013). The Effect of Corporate Governance Structure and Financial Indicators on Financial Distress Conditions (Study on Manufacturing Companies Listed on the Indonesia Stock Exchange for the 2009-2011 Period)

Keramidou, I., Mimis, A., Fotinopoulou, A., &; Tassis, C. D. (2013). Exploring the Relationship Between Efficiency and Profitability. Benchmarking, 20 (5), 647–660.

Kristanti, F. T. (2019). Financial Distress Theory and Its Development in the Indonesian Context. Unfortunate: Media Intelligence.

Mappadang, A., Ilmi, S., Handayani, W. S., &; Indrabudiman, A. (2019). Factors affecting financial distress in transportation companies. Journal of Management and Business Research (JRMB) Faculty of Economics UNIAT, 4(S1), 683–696.

Musdholifah &; Alfiah (2019). The Effect of Corporate Governance, Financial Ratios, Company Size and Macroeconomics on Financial Distress (Study on Mining Sector Companies Listed on the Indonesia Stock Exchange in 2012-2016). Journal of Management Science Volume 6 Number 3, 203.

Ainnun Masita. (2020). Analysis of the Effect of Financial Ratios, Managerial Ownership, and Institutional Ownership on Financial Distress in Trade, Services, and Investment Sector Companies Listed on the IDX in 2015-2018. In Journal of Management Science (Vol. 8, Issue 3, 902).

Nukmaningtyas, F., &; Worokinasih, S. (2018). Use of Profitability, Liquidity, Leverage and Cash Flow Ratios to Predict Financial Distress (Study on Multi-Industry Sector Companies Listed on the Indonesia Stock Exchange for the 2013-2016 Period). In Journal of Business Administration (JAB) |Vol (Vol. 61, Issue 2, 140).

Oktavianti, B., Hizai, A., &; Mirdah, A. (2020). The Effects of Liquidity, Profitability, Leverage, and Company Size on Financial Distress. Jambi Accounting Review (JAR) Vol. 1 No. 1, 95.

Putri, D. S., &; Erinos, N. R. (2020). The Effect of Financial Ratios, Company Size and Agency Costs on Financial Distress. Journal of Accounting Exploration Vol.2, No.1, 2094.

Rahma, N. H., &; Dillak, V. J. (2021). The effect of capital structure, company size, sales growth and intangible assets on financial distress. Scientific Journal of Management, Economics, & Accounting (MEA), 5 (3), 378–395.

Simanjuntak, C. E. B., Krist, F. T., &; Aminah, W. (2017). The effect of financial ratios on financial distress. EProceedings of Management, 4 (2).

Sitorus, D. A., &; Silaban, A. (2023). Effect of Profitability Ratio and Leverage Ratio on Profit Management. US EMT Journal, 7 (2), 496–504.

Sutra, F. M., &; Mais, R. G. (2019). Factors affecting financial distress with the Altman Z-score approach. Journal of Accounting and Management Vol, 16 No. 01, 41-42.

Yani, J. A., Mangkunegara, A., &; Aditama, R. (1995). Sugiyono. 2017, Quantitative, Qualitative, and R&D Research Methods. Bandung: Alfabeta. Procrastination And Task Avoidance: Theory, Research and Treatment. New York: Plenum Press, Yudistira P, Chandra, Diktat Ku.

Yohanson, A. K. (2020). Analysis of the effect of financial ratios on financial distress at PT Sri Tugu Muda (Lampung). Journal of Management and Business (JMB), 1(1).