
Article

Analysis of The Effect of Leverage and Liquidity on Financial Distress of Companies Using the Altman Z-Score Approach (Empirical Study of PT Sri Rejeki Isman Tbk)

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Abstract: This study aims to analyze and determine the effect of leverage and liquidity on corporate financial distress using the Altman Z-Score approach at PT Sri Rejeki Isman Tbk. The period used as an observation in this study is the period when the company experienced a crisis, those are the 2020-2024 quarter III period. The analysis method used is multiple linear regression test with SPSS 26 software. The results of this study indicate that simultaneously, leverage and liquidity have a significant effect on the financial distress of PT Sri Rejeki Isman Tbk. Partial research results, namely: 1) Leverage has a significant negative effect on the financial distress of PT Sri Rejeki Isman Tbk and 2) Liquidity has a significant positive effect on the financial distress of PT Sri Rejeki Isman Tbk.

Keywords: *Leverage, Liquidity, Financial Distress.*

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1. Introduction

Financial distress is a critical issue in the business that directly affects a company's continuity. It refers to a deteriorating financial condition preceding bankruptcy, commonly indicated by the company's inability to meet obligations, operating losses over several years, dividend suspension, financial restructuring, or mass layoffs (Setyowati & Sari, 2019) [1]. If unresolved, financial distress may eventually lead to bankruptcy. In Indonesia, financial distress has become an increasing concern. Over the past decade, more than 40 companies have been delisted from the Indonesia Stock Exchange, with 18 cases occurring even before the COVID-19 pandemic (Rusyanigrum & Rohman, 2021) [2]. This reflects the

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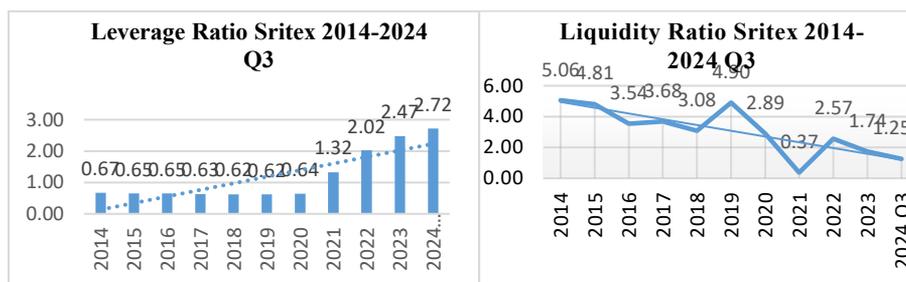
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vulnerability of Indonesian firms to financial difficulties. Several large national companies, such as PT Waskita Karya Tbk, PT Garuda Indonesia, and PT Kimia Farma Tbk, have faced similar challenges, showing that even established firms are not immune to financial crises.

The textile industry has recently drawn attention due to its labor-intensive and capital-intensive nature, making it highly susceptible to pandemic effects, globalization, and raw-material price fluctuations. According to Statistics Indonesia (BPS, 2024), the industry has shown a declining trend in growth and exports in recent years. As one of the strategic sectors contributing to GDP and employment (2.67% of total manufacturing employment; dpr.go.id, 2022), its financial health plays a vital role in the national economy. Nevertheless, several textile firms—such as PT Pan Brothers Tbk, PT Panasia Indo Resources Tbk, and PT Sejahtera Bintang Abadi have been experiencing financial distress but have not yet declared bankruptcy.

A notable case reflecting this phenomenon is the bankruptcy of PT Sri Rejeki Isman Tbk (Sritex), once the largest textile company in Indonesia and among the biggest in Southeast Asia. Established in 1966, Sritex expanded globally, even supplying military uniforms for NATO and the German Army. Despite its strong historical performance, Sritex began facing severe financial problems in 2020. In 2021, the company failed to meet financial obligations totaling IDR 26 trillion in bonds and syndicated loans (Darmansyah et al., 2025) [3]. The COVID-19 pandemic, declining global demand, and managerial missteps worsened its financial condition, leading to a bankruptcy declaration by the Semarang Commercial Court on October 23, 2024. The company ceased operations in March 2025, resulting in mass layoffs.

Figure 1. Leverage & Liquidity Ratio Sritex 2014-2024 Q3



Sritex’s financial distress was evident through a sharp decline in profitability, increasing leverage, and falling liquidity ratios. The Debt-to-Asset Ratio (DAR) rose from below 1.0 during 2014-2020 to 2.72 by the third quarter of 2024, indicating a heavy reliance on debt financing. Meanwhile, liquidity dropped drastically from 5.06 in 2014 to 0.37 in 2021, signaling declining ability to meet short-term obligations. The combination of rising leverage and falling liquidity heightened financial risk, ultimately pushing the company toward bankruptcy.

Given these circumstances, it is essential to examine the factors contributing to Sritex’s financial distress, particularly leverage and liquidity, which are key indicators of a firm’s financial stability. This study employs the Altman Z-Score model to assess financial

distress potential, as it has proven effective in predicting bankruptcy, especially in manufacturing firms.

Based on the above phenomena, therefore this research aims to analyze the effect of leverage and liquidity on financial distress at PT Sri Rejeki Isman Tbk during the crisis period of 2020-2024. The findings are expected to provide valuable insights for academics, practitioners, and investors in understanding early warning signals of financial distress and preventing similar occurrences in other companies.

2. Literature

2.1 Financial Management

Financial management combines science and art in analyzing how financial managers utilize corporate resources to obtain, manage, and allocate funds to maximize shareholder wealth and ensure business sustainability (Fahmi, 2015) [4]. It involves all company activities related to financial decision-making, aiming to optimize profits and maintain financial stability. According to Hanafi and Halim (2014) [5], financial management consists of planning, organizing, staffing, implementing, and controlling financial functions. In essence, financial management guides managers in making rational financial decisions while considering applicable financial principles. Its primary goals include maximizing firm value, maintaining financial stability, and minimizing risks in the present and future.

2.2 Leverage

Leverage measures the extent to which a company's assets are financed by debt (Dirman, 2020) [6]. A higher leverage ratio indicates greater reliance on debt to finance operations and assets, which increases both potential returns and risks if debt obligations cannot be met (Damayanti & Widati, 2024) [7]. Excessive debt use without proportional operational performance improvement can increase the firm's vulnerability to financial distress. Leverage ratios can be measured using the Debt to Asset Ratio (DAR). This ratio is used to measure the ratio between total debt and total assets owned by the company. DAR measures the total funds and assets used to secure debt.

$$\text{Debt to Asset Ratio} = \frac{\text{Total Utang}}{\text{Total Aktiva}}$$

Leverage shows the ratio of total debt to total assets. According to (Nuzurrahma & Fahmi, 2022) [8], when a company uses excessive debt to finance its assets and operations, it is highly likely that the company will not be able to repay the loan. If the company has difficulty paying its obligations, it will experience financial difficulties or what is known as financial distress. Thus, the greater the debt owned by the company, the greater the potential for the company to experience financial distress.

Based on previous research conducted by (Anistasya & Setyawan, 2022) [9], leverage proxied by the Debt to Asset Ratio (DAR) has a significant effect on financial distress proxied by the Altman Z-Score. The study concluded that the higher the DAR, the lower the Z-Score, indicating the possibility of a company experiencing financial distress. These

results are also supported by research conducted by Fitri & Dillak (2020) [10], Rachmawati & Suprihhadi (2021) [11], and Susanti & Ismawati (2024), which shows that leverage affects financial distress. However, research conducted by Dirman (2020) [6] shows different results, stating that leverage does not affect financial distress.

2.3 Liquidity

Liquidity is a company's ability to meet its short-term responsibilities, namely its current liabilities. Liquidity is measured using a liquidity ratio to evaluate a company's ability to meet its maturing obligations, both external and internal (Damayanti & Widati, 2024) [7]. The higher the liquidity ratio, the better the company's financial condition. When a company has a high liquidity ratio, it indicates that the company is in a liquid financial condition, thereby reducing the possibility of the company experiencing financial problems (Hasty & Nursiam, 2023) [12].

A company's liquidity is measured using a liquidity ratio. This study use current ratio as the proxy of liquidity. Current Ratio is a ratio that shows a company's ability to meet its short-term obligations using available current assets in accordance with the maturity period. The formula for calculating the current ratio:

$$\text{Current Ratio} = \frac{\text{Aktiva Lancar}}{\text{Utang Lancar}}$$

Several previous studies have shown a relationship between liquidity and financial distress. According to (Septiani, Siswantini, & Murtatik, 2021) [13], a healthy company generally has a high level of liquidity, which assumes that the company is in good financial condition. This statement is in line with the research by Carolina et al. (2017) [14], which states that companies with high liquidity levels have a number of current assets that are ready to pay their short-term debts so that the company can avoid financial distress. Research conducted by Rachmawati & Suprihhadi (2021) [11] shows that liquidity, as measured by the current ratio, has a significant effect on financial distress, as measured by the Z-Score. The higher the liquidity ratio, the higher the Z-Score, indicating that financial distress is lower because the company is able to meet its obligations using its current assets. These results are supported by research conducted by Wijaya & Suhendah (2023) [15] and Maximilian & Septina (2022) [16], which states that liquidity affects financial distress. However, these results differ from the research conducted by Heniwati & Essen (2020) [17], which states that liquidity does not affect financial distress.

2.4 Financial Distress

Financial distress is a condition in which a company's finances are in crisis and potentially facing bankruptcy (Annabila & Rasyid, 2022) [18]. This condition is reflected in a company's inability to meet its obligations, both short-term and long-term. Financial distress can occur due to several factors, including cash flow difficulties, the large amount of company debt, and operational losses over several years (Hidayati et al., 2021) [19]. Financial distress begins with a company's difficulty in paying all its obligations, which triggers a decline in the company's financial condition. When a company experiences financial distress, special attention is needed to overcome the problem. If the company

cannot overcome these problems appropriately, it will not be able to maintain its business continuity and will be liquidated or go bankrupt. Thus, it can be concluded that corporate bankruptcy does not occur suddenly but is an accumulation of past mismanagement. Therefore, a tool is needed to detect the possibility of bankruptcy that a company may face. Altman Z-Score analysis is one method that can be used to predict the financial health of a company and the likelihood of the company going bankrupt. This method was developed by Prof. Edward Altman in 1968 as an extension of the multiple discriminant analysis statistical technique. Discriminant analysis is a statistical technique that identifies and combines several variables considered important in influencing a company's financial condition (Anistasya & Setyawan, 2022) [9]. The Altman model is basically used to determine the Z-Score value, which can indicate whether a company's financial condition is healthy or not, as well as help identify the company's prospects in the future.

Initially, this model was only designed to predict the bankruptcy of manufacturing companies, but over time Altman modified the model so that it could be applied to various types of companies. The modification made was to eliminate variable X5 (Sales to Total Assets) because this ratio varies greatly across industries. In addition, adjustments were made to the coefficients and variables so that the model could be effectively applied to various types of companies. The following is the modified Altman Z-Score model equation (Diwanti & Purwanto, 2020):

$$Z = 6.56 X_1 + 3.26 X_2 + 6.72 X_3 + 1.05 X_4$$

Explanation:

X₁: Working Capital to Total Assets

X₂: Retained Earnings to Total Assets

X₃: Earning Before Interest and Taxes to Total Assets

X₄: Book Value of Equity to Total Liabilities

The discrimination zones from the calculation are as follows:

If $Z > 2.60$ = "Safe" zone, no financial problems

If $1.1 < Z < 2.60$ = "Gray" zone, cannot be determined

If $Z < 1.1$ = "Distress" zone, unhealthy and potentially bankrupt

2.5 Hypothesis

- a. The Effect of Leverage on Financial Distress
 - Ho₁: Leverage has no effect on financial distress
 - Ha₂: Leverage has an effect on financial distress
- b. The Effect of Liquidity on Financial Distress
 - Ho₂: Liquidity has no effect on financial distress
 - Ha₂: Liquidity has an effect on financial distress
- c. The Effect of Leverage and Liquidity on Financial Distress
 - Ho₃: Leverage and liquidity simultaneously do not affect financial distress
 - Ha₃: Leverage and liquidity simultaneously affect financial distress.

3. Methods

This study used a quantitative descriptive research design which aims to explore and explain the relationship between the research variables. This research focused on two main indicators those are internal factors of a company that often associated with financial distress namely leverage and liquidity. In measuring financial distress, the researchers used Altman Z-Score approach to determine when the company began to show signs of distress and to indicate the level of the company's financial distress. Data analysis was performed using multiple linear regression analysis and the data was processed using SPSS software version 26. By analyzing Sritex financial data, the researcher aimed to identify financial trends and evaluate the influence of each ratio on Sritex's financial distress.

The population in this study includes all of Sritex's annual financial report since its establishment to data. These reports include data on financial ratios and annual financial statements that describe Sritex's financial condition, which are presented periodically on the company's official website and the Indonesia Stock Exchange website. In this study, sampling was conducted using purposive sampling techniques where the researcher selected analysis units that had specific characteristics in line with the focus of the study. The sampling criteria in this study were financial performance data from Sritex for the period 2020 until the third quarter of 2024.

In a study, each variable must have an operational definition in order to provide operation guidelines for researchers to systematically test the relationship between research variables. The following is a table of variable operationalization in this study:

Table 1. Operational Variables

Variabel	Concept	Indicator	Scale
<i>Leverage</i> (X1)	Shows the extent to which a company uses debt to finance its assets (Bachtiar & Handayani, 2022)	$DAR = \frac{\text{Total Liabilities}}{\text{Total Assets}}$	Ratio
Liquiditas (X2)	The company's ability to meet its short-term obligations when they fall due (Ummayah, S. R., & Hertina, D, 2024).	$CR = \frac{\text{Current Assets}}{\text{Current Liabilities}}$	Ratio
<i>Financial Distress</i> (Y)	A condition where the company's finances are in crisis and potentially facing bankruptcy (Annabila N & Rasyid R, 2022).	Altman – Z Score = $6,56 X_1 + 3,26 X_2 + 6,72 X_3 + 1,05 X_4$	Ratio

4. Results

4.1. Descriptive Statistical Analysis

Table 2. Result of Descriptive Statistical Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Leverage	19	.61	2.72	1.6026	.74071
Likuiditas	19	.34	5.02	1.9218	1.40804
Financial Distress	19	-12.91	4.78	-4.5414	5.46172
Valid N (listwise)	19				

4.2 Classic Assumption Test

4.2.1 Normality Test

A normality test was conducted to test whether the residuals or confounding variables in the regression model had a normal distribution. The normality test in this study was conducted using the Kolmogorov Smirnov test.

Table 3. Result of normality test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		19
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.02966066
Most Extreme Differences	Absolute	.175
	Positive	.103
	Negative	-.175
Test Statistic		.175
Asymp. Sig. (2-tailed)		.127 ^c

Based on the output table above, it is known that the Asymp. Sig. significance value is $0.127 > 0.05$. Thus, it can be concluded that the residual data is normally distributed.

4.2.2 Multicollinearity Test

The multicollinearity test aims to determine whether there is a high correlation between independent variables in the regression model. In this study, the multicollinearity test can be seen from the Variance Inflation Factor (VIF) value.

Table 4. Result of multicollinearity test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Leverage	.920	1.087
	Likuiditas	.920	1.087

Based on the image above, it is known that the VIF value of each variable is less than 10. Thus, it can be concluded that there are no symptoms of multicollinearity in the regression model. The results of the analysis show that the R² value is 0.87, which indicates that the model fits the data well.

4.2.3 Autocorrelarion Test

An autocorrelation test was conducted to examine whether there was a correlation between the disturbance in period t and the error from period t-1 (previous) in the regression model. In this study, the autocorrelation test used was the Durbin Watson (D-W) test. The following are the results of the autocorrelation test:

Table 5. Result of autocorrelation test

Model Summary ^b					
Mo del	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.928 ^a	.862	.845	2.15278	1.139

Based on the image above, it is known that the Durbin-Watson (dw) value is 1.139. The Durbin-Watson table value at a significance level of 5% with 2 independent variables and 19 observations is dL=1.0743 and dU=1.5355. Thus, the dw value is greater than the dL value but smaller than the dU value. Based on the decision criteria, from the value dL < dw < dU, no definite conclusion can be drawn. To overcome this problem, another alternative in the form of a run test is carried out. The decision criterion for the run test is that if the significance value is > 0.05, then there is no autocorrelation in the regression model. Conversely, if the significance value is < 0.05, then there is autocorrelation in the regression model. The following are the results of the autocorrelation test using the run test:

Table 6. Runs Test

Runs Test	
Unstandardized Residual	
Test Value ^a	.33168
Cases < Test Value	9
Cases >= Test Value	10

Total Cases	19
Number of Runs	8
Z	-.935
Asymp. Sig. (2-tailed)	.350

Based on the above output, it can be seen that the significance value of the run test is 0.350. This value is greater than 0.05. Thus, it can be concluded that there is no autocorrelation in the regression model, so the regression analysis can continue.

4.2.4 Heteroscedasticity Test

A heteroscedasticity test was conducted to determine whether there was inequality in the variance of residual values from one observation to another in the regression model. The method used in this study was the Glejser test.

Table 7. Result of heteroscedasticity test

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.228	.942		2.367	.031
	Leverage	-.509	.422	-.297	-1.207	.245
	Likuiditas	.068	.222	.075	.305	.764

Based on the above output, it can be seen that the significance value (Sig.) for the Leverage (X1) variable is 0.245 and the significance value for the Liquidity (X2) variable is 0.764. Thus, the significance values of the two variables above are greater than 0.05, so it can be concluded that there is no heteroscedasticity in the regression model.

4.3 Hypothesis Test

4.3.1 Partial Test (t test)

The t-test aims to determine whether the independent variable partially affects the dependent variable. The following is the output of the partial test (t-test):

Table 8. Result of partial test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.113	1.595		-4.459	.000
	Leverage (X1)	-2.134	.714	-.289	-2.988	.009
	Likuiditas (X2)	3.118	.376	.804	8.298	.000

Ho1: Leverage has no effect on financial distress.

Ha1: Leverage affects financial distress

The leverage variable (X1) has a significance value of 0.009. The value $0.009 < 0.05$, so Ho is rejected and Ha is accepted. Thus, it can be concluded that partially, the leverage variable has a significant effect on the financial distress variable of PT Sri Rejeki Isman Tbk.

Ho2: Liquidity has no effect on financial distress.

Ha2: Liquidity affects financial distress

The Liquidity variable (X2) has a significance value of 0.000. The value $0.000 < 0.05$, so Ho is rejected and Ha is accepted. Thus, it can be concluded that partially, the liquidity variable has a significant effect on the financial distress variable of PT Sri Rejeki Isman Tbk.

4.3.2 Simultaneous Test (F test)

The F-test is used to show the simultaneous effect of independent variables on dependent variables. The output for the F-test are as follows:

Table 9. Simultaneous Test

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	462.796	2	231.398	49.930	.000 ^b
	Residual	74.151	16	4.634		
	Total	536.947	18			

Ho3 : Leverage and liquidity simultaneously do not affect financial distress

Ha3 : Leverage and liquidity simultaneously affect financial distress.

Based on the output above, it is known that the significance value is $0.000 < 0.05$. Thus, it can be concluded that the independent variables of leverage and liquidity have a significant simultaneous effect on the dependent variable of financial distress.

4.4 Determinant Coefficient Test

The coefficient of determination test aims to show how well the regression model explains the dependent variable. The coefficient of determination value is shown by the Adjusted R square value. The following is the output of the coefficient of determination test (Adjusted R2):

Table 10. Determinant Coefficient Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.928 ^a	.862	.845	2.15278

Based on the above output, it is known that the coefficient of determination or Adjusted R square value is 0.845 or equal to 84.5%. This figure means that this model can explain 84.5% of the variation in the data, while the remaining 15.5% is explained by other factors outside the regression equation that were not examined in this study.

4.5 Multiple Linear Regression Analysis

Multiple linear regression analysis is used to examine the effect of independent variables on dependent variables expressed in mathematical equations (regression). The following are the results of the multiple linear regression analysis test:

Table 11. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-7.113	1.595		-4.459	.000
Leverage (X1)	-2.134	.714	-.289	-2.988	.009
Likuiditas (X2)	3.118	.376	.804	8.298	.000

a. Dependent Variable: Financial Distress (Y)

Based on the above data, the multiple linear regression equation in this study is as follows:

$$Financial\ Distress = -7,113 - 2,134Leverage + 3,118Liquidity + e$$

Based on the above regression model equation, it can be concluded that:

1. The constant value of -7.113 means that if the leverage and liquidity variables are equal to zero (0) or in a constant state, then the financial distress variable is -7.113.
2. The regression coefficient value of the leverage variable is negative (-) at 2.134, which means that if leverage increases by 1 unit, it will decrease the Z-Score value by 2.134. This indicates that leverage has a negative effect on the financial distress variable measured using the Altman Z-Score. When the leverage value increases, the Z-Score value decreases, indicating that the company is becoming less healthy.
3. The positive (+) regression coefficient value of 3.118 for the liquidity variable means that if liquidity increases by 1 unit, the Z-Score value will increase by 3.118. This shows that liquidity has a positive effect on financial distress as measured by the Altman Z-Score. When liquidity increases, the Z-Score value will increase, indicating that the company is becoming healthier.

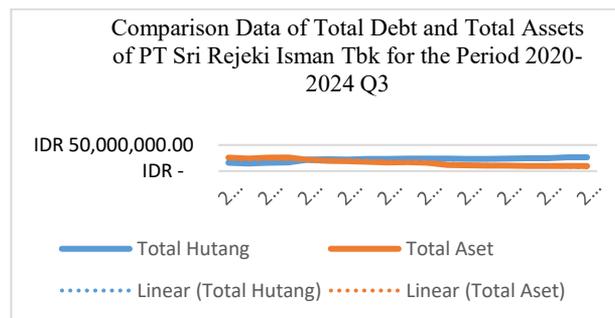
5. Discussion

5.1 The Effect of Leverage on Financial Distress

Based on the results of the partial test that has been conducted, the leverage variable (X1) has a probability value of 0.009, which is smaller than the α value used, which is 0.05. Thus, it can be concluded that H_{01} is rejected and H_{a1} is accepted, which means that the leverage variable has a significant effect on the financial distress of PT Sri Rejeki Isman Tbk. This finding indicates that leverage, measured using the Debt to Asset Ratio (DAR), is an indicator that influences the financial distress experienced by PT Sri Rejeki Isman Tbk.

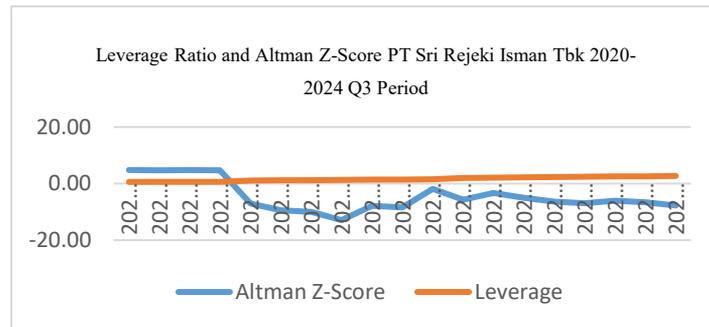
The linear regression results show that the leverage variable has a negative beta coefficient (-) on the financial distress variable with a regression coefficient of 0.210. This means that when leverage increases, the financial distress (z-score) value will decrease, indicating that the company's financial condition is becoming increasingly unhealthy. This condition is clearly reflected in the case of PT Sri Rejeki Isman Tbk, as seen in the company's financial statements. These results illustrate that excessive use of debt can increase the risk of financial failure, especially when the company does not have the ability to generate sufficient profits to meet its debt obligations. These findings are in line with previous theories and literature which state that high leverage can increase a company's financial risk, especially when the company's profits decline.

Figure 2. Comparison Data of Total Debt and Total Assets of PT Sri Rejeki Isman Tbk for the Period 2020-2024 Q3



The large and increasing debt burden is one of the main factors weighing on the finances of PT Sri Rejeki Isman Tbk. Based on the graph above, it can be seen that in the 2020-2024 Q3 period, the company's total debt increased significantly from only IDR 15.8 trillion in Q1 2020 to IDR 26.4 trillion in Q3 2024. On the other hand, the company's total assets decreased from 26 trillion rupiah in 2020 to 9.7 trillion in the third quarter of 2024. Thus, it can be seen that the company's dependence on debt during the observation period has increased.

Figure 3. Leverage Ratio and Altman Z-Score PT Sri Rejeki Isman Tbk 2020-2024 Q3 Period



Based on the Altman Z-Score calculation results, it is known that there was a sharp decline in the Altman Z-Score value from 4.78 in the first quarter of 2020 to -7.02 in the first quarter of 2021, reflecting that the first quarter of 2021 was the beginning of a period of drastic decline in the company's performance. Previously, it was known that Sritex had experienced a decline in net profit in 2020, but Sritex's debt continued to increase every quarter until the third quarter of 2024. Throughout 2020, the company's leverage ratio remained in the range of 0.60-0.63 and the company's Altman Z-Score during that period was still at 4.70. However, as the company continued to increase its debt even though it was already facing financial difficulties, the Altman Z-Score fell to negative figures every quarter. This pattern indicates that when debt increases dramatically, while the company's operational performance is declining, the company's financial condition will deteriorate further.

Table 12. Table of Leverage Ratio and Altman Z-Score PT Sri Rejeki Isman Tbk 2020-2024 Q3 Period

Perusahaan	2020	2021	2022	2023	2024
BELL	1.16	0.50	0.50	0.50	0.52
ERTX	0.73	0.73	0.70	0.69	0.68
INDR	0.51	0.49	0.47	0.49	0.49
POLU	0.43	0.32	0.38	0.36	0.39
SSTM	0.61	0.48	0.46	0.44	0.45
TRIS	0.40	0.38	0.40	0.38	0.39
ZONE	0.54	0.50	0.47	0.50	0.50

The phenomenon related to the effect of leverage on Sritex's financial distress is also supported by a comparison with the leverage ratios of other textile companies that are still in the healthy zone based on the Altman-Z Score calculation. Based on financial data processed from the financial reports of textile companies listed on the IDX, it is known that textile companies in the healthy zone have leverage ratios that are not too high. In the 2020-2024 period, the average leverage ratio of companies was in the range of 0.4 to 1.1. This

ratio is relatively low when compared to Sritex's leverage ratio, which reached 2.7 in 2024. The high leverage ratio of Sritex consequently increases the company's financial risk.

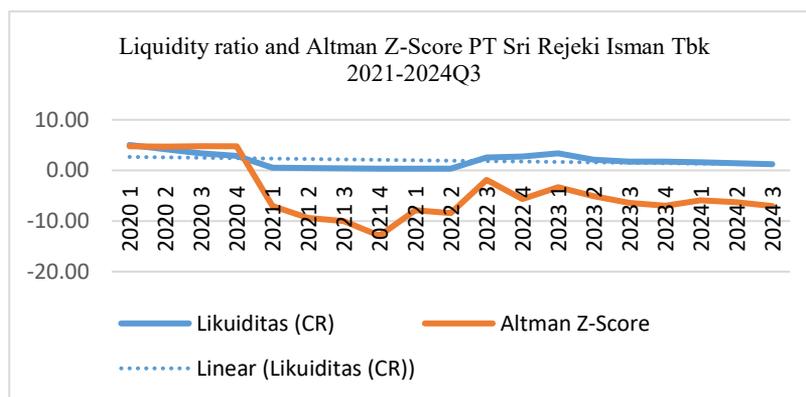
This phenomenon further strengthens the argument that the higher a company's leverage ratio, the worse its financial distress will be. The results of this study are in line with the results of research by Ummayah and Hertina (2024) [20], which states that the higher the leverage ratio, the greater the risk that the company will be unable to pay its obligations. This condition shows that the company's financial performance is in an unhealthy condition, which can lead the company into a worsening financial distress.

5.2 The Effect of Liquidity on Financial Distress

Based on the results of the multiple linear regression that has been conducted, it is known that the liquidity variable (X2) shows a significance value of 0.0000 and is smaller than the α value used, which is 0.05. This means that Ho2 is rejected and Ha2 is accepted. Thus, it can be concluded that liquidity has a significant effect on the financial distress of PT Sri Rejeki Isman Tbk. When a company's liquidity ratio is low, this reflects the company's poor ability to meet its short-term obligations, which can lead the company into financial distress. A positive regression coefficient (+) indicates that the higher the company's liquidity value, the higher the company's Z-score, which indicates that the company is healthier.

During the 2020-2024 third quarter period, the company's current assets experienced a significant decline in each quarter. In the fourth quarter of 2020, the company's current assets were recorded at IDR 16.2 trillion, but this figure decreased in the fourth quarter of 2021 to IDR 8.4 trillion. Amidst the decline in current assets, there was an increase in current liabilities. From the company's financial reports, it is known that from the first quarter of 2021 to the third quarter of 2022, the company's current liabilities increased to Rp23 trillion. This figure is a drastic increase compared to the current liabilities in the fourth quarter of 2020, which were only Rp5.6 trillion.

Figure 4. Liquidity Ratio and Altman Z-Score PT Sri Rejeki Isman Tbk 2021-2024 Q3 Period



Quarterly and annual financial report data published shows that in the first quarter of 2020, Sritex's liquidity ratio stood at 5.02, which is a fairly stable figure, but began to decline in the fourth quarter of 2020 to 2.8, which is still considered quite good. However, after that, the company's liquidity value declined throughout 2021 to 0.37 in the fourth quarter. Since the third quarter of 2022, there has been an increase in the liquidity ratio, but this figure is still relatively low when compared to previous periods. This decline indicates that the company's ability to meet its financial obligations is declining. Based on the graph above, it can be seen that the decline in the liquidity ratio also lowered the Altman Z-Score from 4.7 in the fourth quarter of 2020 to -7.69 in the fourth quarter of 2023. This indicates that the company is in a period of severe crisis. The declining liquidity ratio indicates that the company's finances are increasingly unhealthy and exacerbates the level of distress. The declining liquidity ratio indicates that the company's finances are becoming increasingly unhealthy and exacerbating the level of distress. When the liquidity value increased in the third quarter of 2022, the Z-Score also increased to -1.89, indicating that the company's finances improved when there was an increase in liquidity, but it remained in the crisis zone.

Table 13. Table of Liquidity Ratio and Altman Z-Score PT Sri Rejeki Isman Tbk 2021-2024 Q3 Period

Company	2020	2021	2022	2023	2024
BELL	1.37	1.53	1.53	1.58	1.55
ERTX	1.02	1.09	1.18	1.28	1.22
INDR	1.09	1.24	1.39	1.01	1.07
POLU	2.21	5.54	2.11	2.34	2.00
SSTM	1.49	2.29	1.43	1.48	1.43
TRIS	1.89	2.05	1.99	2.10	1.99
ZONE	1.58	1.70	1.88	1.79	1.82

When compared to other companies in the textile industry, Sritex's liquidity ratio during the crisis was very low. The average liquidity ratio of companies in the healthy zone is above 1.00 over the last 5 years. Thus, this figure shows that the company's current assets are greater than its current liabilities. This ratio is higher than Sritex's liquidity ratio, which was at 0.88 in 2015. Thus, this figure indicates that the company's current assets are greater than its current liabilities. This ratio is relatively higher than Sritex's liquidity ratio, which was in the range of 0.3-0.5 from 2021 to the second quarter of 2022, causing Sritex in a severe financial crisis. Although after 2022, Sritex's liquidity ratio increased to above 1, this figure has not been able to push Sritex out of the distress zone because the amount of debt it has is still quite high. However, the increasing liquidity ratio has triggered an increase in the Z-Score value, which indicates that the company is getting closer to the safe zone.

These results show a relationship whereby when liquidity deteriorates, companies experience greater financial pressure; conversely, when liquidity improves, the company's financial condition also improves. Thus, this relationship explains that liquidity plays an important role in mitigating the risk of bankruptcy. The better a company's ability to meet

its short-term obligations, the more stable its financial condition will be. These findings show that companies with more current assets than short-term liabilities will have higher liquidity flexibility. In times of crisis or economic pressure, liquidity becomes an important tool for maintaining operations, paying short-term debts, and avoiding default. Therefore, high liquidity can help companies when facing financial pressure, and conversely, low liquidity can put companies in a crisis situation even if leverage is not too high.

5.3 The Simultaneous Effect of Leverage and Liquidity on Financial Distress

Based on the results of the simultaneous test analysis that has been carried out, it is known that the probability value is 0.0000, which is smaller than the α value used, which is 0.05. Thus, this means that H_0 is rejected and H_a is accepted, so it can be concluded that leverage and liquidity together affect the financial distress experienced by PT Sri Rejeki Isman Tbk. Overall, the results of this analysis show that leverage and liquidity are two factors which, when tested simultaneously, will become factors that have an important contribution to the financial distress that occurred at Sritex during the observation period. Therefore, it is important for companies to pay more attention to managing their debt and liquidity in order to minimize the risk of financial distress. The results of this study are in line with previous research conducted by Khairiyah & Affan (2023), which states that liquidity and leverage simultaneously have a significant effect on financial distress. Another study conducted by (Rachmawati & Suprihadi, 2021) [11] also mentions that liquidity and leverage simultaneously affect financial distress.

6. Conclusion and Recommendations

6.1 Conclusion

The purpose of this study is to determine and demonstrate the effect of leverage and liquidity on corporate financial distress. The object used in this study is PT Sri Rejeki Isman Tbk, a company that was once the largest textile company in Southeast Asia but had to cease operations in 2025 due to bankruptcy. The period observed in this study is the financial performance from 2020 to the third quarter of 2024 because this period is when the company's financial performance experienced a significant decline. There were 19 observations. The results show that the variables of leverage and liquidity have a significant effect on financial distress.

The following are the conclusions drawn from this study:

1. The leverage variable measured using the Debt to Asset Ratio (DAR) has a significant effect on financial distress. This is evidenced by research results that have a significance level lower than the alpha value (5%) with a negative direction. These results mean that the higher the company's leverage, the lower the Altman Z-Score value will be, indicating that the financial condition is increasingly unhealthy. This finding shows that if an increase in debt is not accompanied by good operational performance, it can worsen the company's financial condition. This phenomenon is clearly reflected in Sritex. It is known that in the 2020-2024 third quarter period, the company's leverage ratio continued to increase and caused the company to be unable to meet all of its financial obligations, resulting in the company experiencing financial distress and eventually going bankrupt.
2. The liquidity variable measured using the Current Ratio (CR) has a significant effect on financial distress. This is evidenced by the results of the study, which have a significance level lower than the alpha value (5%) with a positive direction. These

results indicate that if liquidity is higher, the Z-Score value will also increase. Thus, if a company has high liquidity accompanied by good operational performance, the company will be further away from the risk of financial distress. At Sritex, it is known that during the 2020-2024 third quarter period, the company's current liabilities increased quite drastically while the company's current asset decreased.

3. Simultaneous analysis of both independent variables produced a significance level lower than alpha (5%). This indicates that in this study, both independent variables simultaneously affect the dependent variable, meaning that these two variables can be predictors of Sritex's level of financial distress. These results reflect the importance of managing capital structure and liquidity in maintaining corporate financial stability, especially during periods of crisis.

6.2 Recommendation

Based on the findings, several recommendations can be proposed:

a. Theoretical Suggestions

Future researchers are encouraged to expand the research scope by including different industries, companies, and longer observation periods to enhance generalizability and comparison. Further studies should also include other potential determinants of financial distress—such as profitability, cash flow ratios, efficiency ratios, and corporate governance (GCG)—to enrich the analysis of factors affecting a company's financial health.

b. Practical Suggestions

- For companies in similar industries, the findings of this study can serve as a valuable lesson to pay closer attention to financial stability, particularly regarding funding structure and liquidity management. Companies should maintain leverage and liquidity within healthy limits and ensure efficient asset utilization to meet obligations optimally. In addition, firms are advised to mitigate potential risks by continuously monitoring financial ratios and evaluating financial performance trends.
- For investors, the results of this study can be used as a reference in assessing the bankruptcy risk of companies. Investors should analyze financial statements more thoroughly to understand a firm's financial condition and potential exposure to financial distress. Conducting such fundamental analysis is crucial to minimize the risk of investment failure resulting from corporate bankruptcy.

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