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FINANCIAL RATIOS AND FINANCIAL DISTRESS IN CONSUMER CYCLICALS COMPANIES: EVIDENCE FROM THE COVID-19 AND ECONOMIC RECOVERY PERIOD

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ABSTRACT

Objective: This study aims to analyze the effect of financial ratios, namely profitability, liquidity, leverage, and activity ratios, on financial distress in consumer cyclicals sector companies listed on the Indonesia Stock Exchange (IDX) during 2020–2022.

Research Design & Methods: This study employed a quantitative approach with a causal associative research design. The population consisted of consumer cyclicals sector companies listed on the Indonesia Stock Exchange (IDX) during 2020–2022. Secondary data were collected from audited annual financial statements and analyzed using ordinal logistic regression with IBM SPSS Statistics.

Findings: The results indicate that profitability and liquidity ratios have a negative effect on financial distress, implying that companies with higher profitability and stronger liquidity are less likely to experience financial difficulties. In contrast, the leverage ratio has a positive effect on financial distress, indicating that greater reliance on debt increases the risk of financial distress. Meanwhile, the activity ratio does not significantly affect financial distress. Furthermore, the coefficient of determination shows that financial ratios simultaneously explain 51% of the variation in financial distress, while the remaining 49% is influenced by other factors outside the model.

Implications: The findings highlight the importance of maintaining profitability, liquidity, and prudent debt management as preventive measures against financial distress, particularly in the consumer cyclicals sector, which is highly sensitive to economic fluctuations and changes in consumer purchasing power.

Contribution & Value Added: This study contributes to the financial distress literature by providing empirical evidence on the role of financial ratios as early warning indicators of financial distress in the consumer cyclicals sector during a period characterized by pandemic-related disruption and economic recovery. The findings offer practical insights for managers, investors, creditors, and regulators in assessing corporate financial health and mitigating financial distress risk under continuing economic uncertainty.

Keywords: Financial Distress, Financial Ratios, Consumer Cyclicals.

JEL codes: G33, G32, M41

Article type: research paper

INTRODUCTION

Since mid-2021, geopolitical tensions between Russia and Ukraine have triggered a global energy crisis, impacting the global economy, which is still recovering from the impact of the COVID-19 pandemic. Although the COVID-19 pandemic began to subside in 2022, various economic challenges persist in the post-pandemic period. Global supply chain disruptions, rising energy and commodity prices, inflationary pressures, and geopolitical uncertainty have put many companies at risk of declining financial performance. These conditions are pushing companies to increase their adaptability and maintain financial stability to ensure their business continuity. In situations like this, a company's ability to manage profitability, liquidity, operational activities, and funding structure is a crucial factor in mitigating the risk of financial distress. The global economy in 2022 generally reflected significant fluctuations and tended to experience a slowdown ([Capital Market Fact Book OJK, 2022](#)). The impact of this instability poses a serious challenge to risk management efforts and economic decision-making in various sectors.

Meanwhile, the Indonesian economy experienced significant improvements throughout 2021 and 2022. According to data from the [Central Statistics Agency \(BPS\), \(2023\)](#), the Indonesian economy in 2021, measured by

Gross Domestic Product (GDP), recorded a significant improvement of 3.69%, or 5.02% year-on-year (yoy). This figure is higher than the 2020 figure, which contracted by -2.07%. By the end of 2022, Gross Domestic Product (GDP) recorded a significant improvement of 15.42%, higher than the 2021 figure of 3.69%. Cumulatively throughout 2022, the Indonesian economy reached 5.31%, the highest growth rate since 2014.

Although the Indonesian economy has shown a positive recovery trend post-pandemic, this recovery process has not been felt equally across all business sectors. Some sectors still face challenges such as changing consumer behavior, rising operational costs, and uncertain market demand. The consumer cyclical sector is particularly vulnerable to changes in economic conditions because company performance in this sector is highly dependent on consumption levels and purchasing power. Therefore, the consumer cyclical sector is interesting to study in the context of financial distress during the post-pandemic economic recovery.

Finance Minister Sri Mulyani Indrawati also stated that the Indonesian economy in 2022 was stable in terms of macroeconomics, fiscal-monetary policy, and the financial sector in general. Furthermore, state revenues were reported to be in good condition, and Indonesia's trade balance was also recorded as positive (Kemenkeu.go.id, 2022).

However, Indonesia's economic growth which continues to increase from year to year has not resulted in companies in the consumer cyclicals sector experiencing an increase in company revenue. This contradicts the definition of consumer cyclical sector companies according to Nurhaliza (2022) namely that consumer cyclical sector companies are companies with businesses that are vulnerable to being affected by economic conditions or are directly proportional to economic growth.

Based on data from the Indonesia Stock Exchange, consumer cyclical companies are the sector with the most companies included in the Indonesia Stock Exchange (IDX) special monitoring board category, with 50 companies. This special monitoring board category has been in effect since 2023, with one of its criteria being companies that show no change in revenue in their latest audited financial statements or interim financial statements compared to their previous financial statements.

This is consistent with the financial reports of consumer cyclical companies for 2020-2022, as shown in Figure 1. It can be seen that the average net profit of consumer cyclical companies has been negative for three consecutive years, or in other words, they have experienced losses. These sustained losses reflect financial distress within the sector. This is in line with Eloumi and Gueyie (2001), who categorize a company as experiencing financial distress if it achieves negative net profit for two consecutive years.

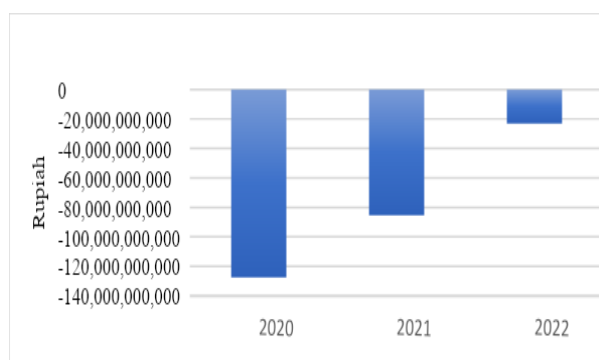


Figure 1. Average Net Profit

According to Damajanti, Wulandari, and Rosyati (2021), losses experienced by a company will result in financial distress. These losses discourage investors from investing their funds in the company, resulting in insufficient funds and the company experiencing financial distress (Nafisah, Widjajanti, and Budiati, 2023). Financial distress can also negatively impact a company's reputation, as investors perceive it as incompetent (Oktaviani and Purwanto, 2020). Platt and Platt (2002) state that "financial distress is a stage of decline in a company's financial condition, occurring before bankruptcy or liquidation." One sign that a company will experience financial distress in the near future is a continuous decline in profits, indicating that the company is financially unhealthy (Hayes, 2021).

Furthermore, according to Permatasari et al. (2019), one sign of financial distress in a company is increasing debt, which will stimulate higher interest costs and reduce profits. If debt increases, revenue continues to decline, and losses persist, there is concern that this could lead to financial distress in the company (Yosandra and Sembiring, 2022). The losses experienced by companies in the consumer cyclical sector during the 2020–2022 period demonstrate that national economic recovery is not always accompanied by a recovery in corporate financial performance. This indicates that internal company factors can influence a company's ability to withstand economic pressures. Therefore, analyzing financial ratios is crucial to determine the extent to which a company's financial condition can explain the occurrence of financial distress in the post-pandemic period.

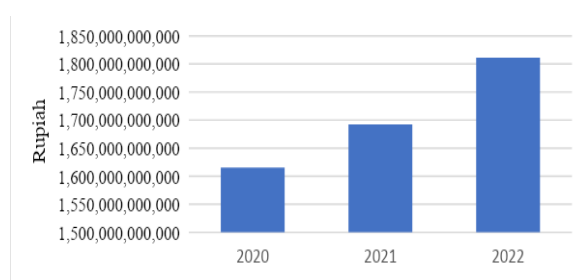


Figure 2. Average Debt

Figure 2 shows the average debt of companies in the consumer cyclical sector, which is very high and continues to rise every year. According to [Khairiyah and Affan \(2023\)](#), it is possible that companies with substantial debt may default on their debt agreements with creditors. This is because their assets may be insufficient to cover their debt, and the companies will also be burdened with high interest costs. If these conditions are not properly addressed, the potential for financial distress will increase.

According to [Afriyeni \(2015\)](#), one source of information regarding the possibility of financial distress in a company is the company's financial statements, through the calculation of financial ratios. [Kasmir \(2019\)](#) states that financial ratios involve comparing figures in financial statements by dividing one figure by another. This comparison can be made between elements within a single financial statement or between elements across financial statements for different periods. [Gitman and Zutter \(2015\)](#) state that financial ratio analysis can be used to predict the likelihood of financial distress based on a company's financial performance by analyzing several ratios, such as profitability ratios, liquidity ratios, leverage ratios, and activity ratios.

Based on the description of the phenomena, theories, and results of previous research that show that there are still differences in findings regarding the factors that influence financial distress, especially in consumer cyclical sector companies that are vulnerable to changes in economic conditions, this study aims to analyze the influence of profitability ratios, liquidity ratios, leverage ratios, and activity ratios on financial distress in consumer cyclical sector companies listed on the Indonesia Stock Exchange for the period 2020–2022. This research is crucial given the current global economic uncertainty and post-pandemic pressures, which have increased the risk of financial distress in various business sectors. In this context, financial ratios can be used as an early warning system to identify potential financial difficulties in companies. Theoretically, this research is expected to enrich the literature on financial distress and its influencing factors in the consumer cyclical sector. In practice, the results of this study are expected to be a consideration for company management, investors, creditors, and other stakeholders in evaluating the company's financial condition and making more appropriate decisions amidst economic dynamics and uncertainty.

LITERATURE REVIEW

Signalling Theory

According to [Ross \(1977\)](#), signalling theory explains that companies provide information to external parties to assist in decision-making. The information published by companies is crucial for investors in assessing whether to invest ([Damajanti et al., 2021](#)). [Sudaryanti and Dinar \(2019\)](#) add that predicting financial distress provides a signal to management to improve performance and for external parties to assess the sustainability of the partnership. This prediction can be determined through the financial ratios available in the financial statements.

Financial Distress

According to [Hanifah \(2022\)](#), financial distress is financial difficulties characterized by a decline in a company's performance, resulting in its inability to pay its obligations on time. [Platt and Platt \(2002\)](#) define financial distress as the stage of financial decline before bankruptcy or liquidation. [Prihadi \(2020\)](#) states that bankruptcy occurs when a company is unable to pay its obligations, and this can be identified early by analyzing financial statements. [Afriyeni \(2015\)](#) added that financial reports, through the calculation of financial ratios, can be a source of information for detecting potential financial distress early. [Platt and Platt \(2002\)](#) stated that information about financial distress is useful for expediting problem resolution, preventing bankruptcy, and providing early warning for management to take steps such as mergers or acquisitions. Signs of financial distress identified by [Hayes \(2021\)](#) include persistently declining profits, declining sales, and increasingly long receivables collection periods. Thus, financial distress can be identified through financial ratio analysis and provides an early warning for companies to take necessary action.

Financial statements

According to [Kasmir \(2019\)](#), financial statements are reports that describe a company's financial condition during a specific period. [Prihadi \(2020\)](#) states that financial statements are the result of recording all financial transactions in a company. [The Financial Accounting Standards \(2023\)](#) state that the purpose of financial statements is to provide information about the financial position and performance, as well as the cash flows of an entity, which is useful for users in making economic decisions. This report covers assets, liabilities, equity, income, expenses, and cash flows, and helps predict future cash flows. Thus, financial statements serve to provide a comprehensive overview of a company's financial position and performance, including assets, liabilities, equity, income, expenses, profits, losses, and cash flows.

Financial Statement Analysis

According to [Kasmir \(2019\)](#), financial statement analysis is a process that uses relevant data and proper accounting procedures to understand a company's financial condition. [Hery \(2020\)](#) adds that this analysis involves dissecting the elements of financial statements to gain a deeper understanding. Financial statement analysis helps various parties better understand the statements and uncovers the company's strengths and weaknesses, reflecting management performance. [Kasmir \(2019\)](#) explains that the objectives of this analysis include: understanding the company's financial position, identifying weaknesses and strengths, determining corrective measures, evaluating management performance, and comparing results with similar companies. Thus, financial statement analysis is an in-depth process aimed at understanding the company's financial condition, identifying weaknesses and strengths, and providing a basis for evaluating and improving performance.

Financial Ratio Analysis

According to [Kasmir \(2019\)](#), financial ratio analysis is the activity of comparing figures in financial reports by dividing one figure by another, either in one period or several periods. [Hery \(2020\)](#) added that financial ratios are generated from comparisons between relevant financial statement items. [Gitman and Zutter \(2015\)](#) explained that financial ratio analysis can be used to predict financial distress through profitability, liquidity, leverage, and activity ratios. Thus, financial ratio analysis can be summarized as the process of comparing figures in financial statements to predict financial distress. This comparison uses financial ratios such as profitability, liquidity, leverage, and operating activity.

Profitability Ratio

According to [Kasmir \(2019\)](#), profitability ratios assess a company's ability to generate profits and demonstrate its effectiveness in generating revenue. Their purpose is to measure profit within a period, compare profits between periods, assess profit development, and measure net profit after tax against equity. Some types of profitability ratios include Net Profit Margin (NPM), Gross Profit Margin (GPM), Return on Assets (ROA), and Return on Equity (ROE). These ratios help assess financial performance in generating profits.

[Prihadi \(2020\)](#) added that a high profitability ratio indicates a company's better condition and reduces the risk of financial distress. Conversely, low profitability can lead to financial distress because it reflects the company's inability to generate profits ([Aryadi, 2018](#)). In the context of signaling theory, the profitability ratio serves as an important benchmark for investors in assessing a company's financial health ([Putri and Kristanti, 2020](#)). A high profitability ratio indicates financial health, while a low ratio indicates potential financial distress ([Anza, 2020](#)). Previous research has shown that profitability has a negative influence on financial distress ([Arifiana and Khalifaturrofi'ah, 2022](#); [Hadi, 2022](#); [Situmorang et al., 2022](#); [Hariansyah and Soekotjo, 2020](#); [Arasu et al., 2019](#); [Abdullah et al., 2023](#)). In other words, the lower the profitability ratio, the higher the risk of financial distress, as reflected in a low Z-Score ([Pramudya, 2023](#)).

Ha1: Profitability ratio has a negative effect on financial distress

Liquidity Ratio

According to [Kasmir \(2019\)](#), liquidity ratios measure a company's ability to meet short-term obligations. A company is considered liquid if it can pay its debts on time. The purposes of using this ratio include measuring debt repayment capacity, assessing liquidity conditions, planning cash and debt, and identifying liquidity weaknesses. Types of liquidity ratios include the Current Ratio (CR), Quick Ratio (QR), Cash Ratio (CSR), Cash Turnover, and Inventory to Net Working Capital. [Alvernia and Maemunah \(2022\)](#) note that a low liquidity ratio is often caused by holding unproductive current assets, such as bad debts, which delay payment of obligations and can trigger the need for additional borrowing. Consequently, a company may face financial distress if it cannot meet its obligations with its existing current assets.

In the context of signaling theory, liquidity ratios provide investors with important information about a company's financial health. A low liquidity ratio indicates a company's inability to repay debts on time and sends a negative signal to investors about potential financial distress ([Putri and Kristanti, 2020](#)). This can reduce investor

interest in investing, as they may perceive the company as risky and unprofitable in the future (Abdullah et al., 2023). Previous research has shown that the liquidity ratio has a negative effect on financial distress (Hadi, 2022; Hariansyah and Soekotjo, 2020; Abdullah et al., 2023). In other words, the lower the liquidity ratio, the higher the risk of financial distress, as reflected in a low Z-Score (Pramudya, 2023).

Ha2: Liquidity ratio has a negative effect on financial distress

Leverage Ratio

According to Kasmir (2019), the leverage ratio measures the extent to which a company's assets are financed by debt and the company's ability to pay its liabilities if liquidated. The purposes of this ratio include assessing the ability to pay fixed liabilities, measuring the balance between assets and equity, and the impact of debt on asset management. Types of leverage ratios include the Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), Long-Term Debt to Equity Ratio (LTD/ER), Times Interest Earned (TIE), and Fixed Charge Coverage (FCC). These ratios help evaluate a company's ability to meet its obligations.

Andre and Taqwa (2014) revealed that high leverage ratios are often caused by a high level of debt financing for operations. Large amounts of debt result in companies incurring high interest rates, increasing the risk of difficulty in repaying debt, and triggering financial distress. Therefore, high reliance on debt can increase the likelihood of financial distress. In the context of signaling theory, the leverage ratio provides investors with important information about a company's financial health (Putri and Kristanti, 2020). Companies with high leverage ratios, indicating substantial debt usage, send a negative signal to investors, who may perceive the company as risky and potentially experiencing financial distress (Anza, 2020). Previous research has shown that leverage ratios have a positive effect on financial distress (Defitria et al., 2019; Arasu et al., 2019; Ceylan, 2021; Handayani, 2023). In other words, the higher the leverage ratio, the higher the risk of financial distress, as reflected in a lower Z-Score (Pramudya, 2023).

Ha3: Leverage ratio has a positive effect on financial distress

Activity Ratio

According to Kasmir (2019), activity ratios are used to measure a company's efficiency in utilizing assets and assess its ability to carry out daily activities. This ratio reflects how effectively a company manages its assets and whether predetermined targets have been achieved. The objectives of calculating activity ratios include measuring the length of time to collect receivables, calculating the average days' inventory, and assessing the turnover of working capital and fixed assets. Types of activity ratios include Receivable Turnover (RTO), Inventory Turnover (ITO), Working Capital Turnover (WCTO), Fixed Assets Turnover (FATO), and Total Asset Turnover (TATO). These ratios help evaluate the efficiency of asset use and the effectiveness of a company's operations.

Anisa et al. (2023) explain that if a company cannot increase sales using existing assets, profits will decline and potentially lead to financial distress. The better a company utilizes its assets, the higher its profits, which can reduce the risk of financial distress. Conversely, a low activity ratio due to suboptimal asset utilization can reduce profits and increase the likelihood of financial distress. In the context of signaling theory, activity ratios provide investors with information about how well a company is utilizing its assets to achieve optimal sales and profit results, and can also predict the possibility of financial distress (Putri and Kristanti, 2020). Financial distress experienced by a company can reduce investor interest because it is perceived as less profitable in the future (Abdullah et al., 2023). Previous research confirms that the activity ratio negatively impacts financial distress (Arifiana and Khalifaturofi'ah, 2022). In other words, the lower the activity ratio, the higher the risk of financial distress, as reflected in a lower Z-score (Pramudya, 2023).

Ha3: Activity ratio has a positive effect on financial distress

METHODS

This study uses a quantitative approach with an associative causality research design. According to Sugiyono (2021), quantitative research is a research method based on the philosophy of positivism and is used to examine specific populations or samples through quantitative data collection and analysis. The associative causality design is used to test the effect of independent variables on the dependent variable. Secondary data were collected from audited annual financial statements and analyzed using ordinal logistic regression with IBM SPSS Statistics. In this study, financial distress serves as the dependent variable, while the profitability ratio, liquidity ratio, leverage ratio, and activity ratio are the independent variables.

The study was conducted on consumer cyclical companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2022 period. The data used was secondary data obtained from the companies' annual financial reports published on the Indonesia Stock Exchange and their official websites (Bursa Efek Indonesia, 2024). To identify financial distress, the study also used financial report data from 2019–2022. The research process was conducted from February to August 2024.

Table 1. Sample Selection

No	Criteria	Amount
1	Consumer cyclical sector companies that have been and are still listed on the Indonesia Stock Exchange (IDX) for the 2020-2022 period	157
2	Consumer cyclical sector companies that inconsistently publish audited financial reports in Rupiah currency on the Indonesia Stock Exchange (IDX) during the 2020-2022 period	(58)
3	Companies that do not experience negative net profit or do not experience losses for 2 consecutive years during: 2019-2020 period 2020-2021 period 2021-2022 period	(80) (65) (70)
4	Number of samples meeting the criteria: 2019-2020 Period 2020-2021 Period 2021-2022 Period	19 34 29
The amount of data used in the research		82

The population in this study was all consumer cyclical companies listed on the Indonesia Stock Exchange during the 2020–2022 period. The sampling technique used was purposive sampling, which selects samples based on specific criteria aligned with the research objectives. The sample criteria used included: (1) consumer cyclical sector companies listed on the Indonesia Stock Exchange during the 2020–2022 period; (2) companies that consistently published audited annual financial reports presented in Rupiah during the 2020–2022 period; and (3) companies that experienced negative net profit or losses for two consecutive years in the 2019–2021 period. Companies that met all of these criteria were designated as research samples and used in the analysis process to test the effect of financial ratios on financial distress.

The data analysis technique used was ordinal logistic regression. Before conducting the regression analysis, descriptive statistical tests were first performed. Then, a logistic regression test was conducted, which yielded the overall model fit test, goodness of fit test, coefficient of determination test, parallel lines test, parameter estimation, and log odds ratio test.

Table 2. Operational Definition of Variables

Variable	Operational Definition	Indicators	Scale
Financial Distress (Y)	Financial distress is a condition of a company's deteriorating financial health that occurs prior to bankruptcy or liquidation. In this study, financial distress is measured using the Modified Altman Z-Score model, which classifies companies into the categories of bankrupt, in the gray area, and healthy (Platt and Platt., 2002; Altman et al., 1995; Imelda and Alodia, 2017)	$Z'' = 6,56X_1 + 3,26X_2 + 6,72X_3 + 1,05X_4$ Category: $Z'' < 1,1 = 0$ (Bankrupt) $1,1 < Z'' < 2,6 = 1$ (Grey Area) $Z'' > 2,6 = 2$ (Health)	Ordinal
Profitability Ratios (X ₁)	A ratio that indicates a company's ability to generate profits from its assets. It is approximated by Return on Assets (ROA) (Kasmir, 2019)	$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$	Ratio
Liquidity Ratios (X ₂)	A ratio that indicates a company's ability to meet its short-term obligations as they come due. It is approximated by the Current Ratio (CR) (Kasmir, 2019)	$CR = \frac{\text{Current Assets}}{\text{Current Liabilities}}$	Ratio
Leverage Ratio (X ₃)	A ratio that indicates the extent to which a company's assets are financed by debt. It is approximated by the Debt-to-Equity Ratio (DER) (Kasmir, 2019)	$DER = \frac{\text{Total Liability}}{\text{Total Equity}}$	Ratio
Activity Ratios (X ₄)	A ratio that indicates a company's efficiency in utilizing its assets to generate sales. It is approximated by Total Asset Turnover (TATO) (Kasmir, 2019)	$TATO = \frac{\text{Sales}}{\text{Average Total Assets}}$	Ratio

RESULT

Descriptive Statistical Analysis

Table 3. Descriptive Statistical Analysis

	N	Range	Min	Max	Mean	Std. Dev.
Z-Score	82	2	0	2	0,400	0,718
ROA	82	7,591	-7,592	-0,000	-0,317	1,106
CR	82	8,789	0,108	8,800	1,412	1,597
DER	82	12,803	-6,268	6,535	1,160	1,787
TATO	82	7,127	0,000	0,606	0,606	1,148
Valid N (listwise)	82					

Based on the descriptive statistics, the financial distress variable measured using the Z-score has a minimum value of 0, a maximum of 2, an average of 0.400, and a standard deviation of 0.718, indicating that on average, the sample companies tend to be in the financial distress category with a fairly high level of data variation. The profitability variable, proxied by Return on Assets (ROA), has a minimum value of -7.592, a maximum of 0.000, an average of -0.317, and a standard deviation of 1.106, indicating the company's low ability to generate profits. The liquidity variable, proxied by the Current Ratio (CR), has a minimum value of 0.108, a maximum of 8.800, an average of 1.412, and a standard deviation of 1.597, indicating differences in companies' ability to meet short-term obligations. The leverage variable, proxied by the Debt to Equity Ratio (DER), has a minimum value of -6.268, a maximum of 6.535, an average of 1.160, and a standard deviation of 1.787, indicating significant variations in the level of debt usage between companies. Meanwhile, the activity variable proxied by Total Asset Turn Over (TATO) has a minimum value of 0.000, a maximum of 7.128, an average of 0.606, and a standard deviation of 1.148, which indicates that the company's ability to utilize assets to generate sales tends to be low with a fairly high level of data distribution.

Case Processing Summary

In this study, 82 data sets were processed (N=82). To determine the completeness and absence of missing data, see Table 4, case processing summary.

Table 4. Case Processing Summary

	N	Marginal Percentage
Z-SCORE	Bankrupt	60 73,2%
	Grey Area	11 13,4%
	Health	11 13,4%
<i>Valid</i>	82	100%
<i>Missing</i>	0	
Total	82	100%

Based on the case processing summary table, there is no missing data with a total of 82 data. The dependent variable Y (Z-Score) has three categories: bankrupt (value 0) with 60 data, gray (value 1) with 11 data, and healthy (value 2) with 11 data.

Assessing the Overall Fit Model

The overall model fit test is carried out to assess whether the hypothesized model fits or is appropriate to the data or not.

Table 5. Overall Model Fit

Model	-2Log Likelihood	Chi-Square	df	Sig.
<i>Intercept Only</i>	125,873			
<i>Final</i>	90,163	35,710	4	0,000

Based on the results of the overall model fit test, it can be seen that the value of -2 log closeness intercept only is 125.873 and the final -2 log closeness has a value of 90.163. A significant decrease in the value of -2 log closeness at 0.000 means that H_0 is accepted and H_a is rejected, or in other words, the model with independent variables is better than the model with only the intercept. So, it can be concluded that the model fits or is in accordance with the data.

Testing Model Feasibility (Goodness of Fit Test)

The suitability of a model in ordinal logistic regression is determined based on the value of the goodness of fit test. This goodness of fit test is measured by looking at the chi-square value at the bottom of the test.

Table 6. Goodness of Fit Test

	Chi-Square	df	Sig.
<i>Pearson</i>	153,941	158	0,576
<i>Deviance</i>	90,163	158	1,000

Based on the results of the goodness of fit test, the Pearson chi-square value is 153.941 with a significance value of 0.576. Meanwhile, the deviance test value is 90.163 with a significance value of 1.000. From the table above, it can be seen that the significance value has a value far above 0.05, or in other words, H_0 is accepted and H_a is rejected. Thus, it can be concluded that the hypothesized model is feasible and can predict the observed data.

Coefficient determination

Testing the coefficient of determination in ordinal logistic regression is done using Nagelkerke R Square. This model aims to determine how much the combination of independent variables is able to explain the variation in the dependent variable.

Table 7. Nagelkerke's R Square

Coefficient determination	
<i>Nagelkerke R Square</i>	0,510

The results of the coefficient of determination test show a Nagelkerke R Square value of 0.510. This means that 51% of the variability in the dependent variable can be explained or influenced by the variability in the independent variable. The remaining 49% is explained or influenced by variables outside the model.

Parallel lines test

The parallel lines test assesses whether the assumption that all categories have the same parameters or not in their measurements.

Table 8. Parallel lines test

Model	-2Log Likelihood	Chi-Square	df	Sig.
<i>Null Hypothesis</i>	90,163			
<i>General</i>	88,966	1,197	4	0,879

Based on the results of the parallel lines test, the value is 0.879. This result has a value > 0.05 , so it can be concluded that H_0 is accepted and H_a is rejected, or in other words, the model produces the same regression coefficient.

Ordinal Logistic Regression Equation

The testing in this study uses ordinal logistic regression testing because the dependent variable is a variable that has multilevel categories.

Table 9. Ordinal Logistic Regression

		Estimate	Std. Error	Wald	df	Sig.
Threshold	[Z-Score=0]	-0,093	0,731	0,016	1	0,899
	[Z-Score=1]	1,208	0,778	2,413	1	0,120
Location	ROA	12,040	6,264	3,695	1	0,045
	CR	0,518	0,226	5,248	1	0,022
	DER	-0,923	0,358	6,634	1	0,010
	TATO	-0,631	0,529	1,423	1	0,233

The results of the ordinal logistic regression test produce the following regression equation:

$$\text{Logit (p1)} = -0,093 + 12,040\text{ROA} + 0,518\text{CR} - 0,923\text{DER} - 0,631\text{TATO}$$

$$\text{Logit (p1+p2)} = 1,208 + 12,040\text{ROA} + 0,518\text{CR} - 0,923\text{DER} - 0,631\text{TATO}$$

Description:

P1 = Z-Score probability of bankruptcy category (0)

P2 = Z-Score probability of gray category (1)

Odds Ratio

The interpretation of the results of ordinal logistic regression in this study uses odds ratios. Odds ratios are used to determine how much an increase in each independent variable can increase or decrease the odds of a Z-Score category based on the results of the regression equation.

Table 10. Odds Ratio

Variable	Odds Ratio ($EXP(\beta_i)$)
ROA	1693%
CR	1,68%
DER	0,40%
TATO	0,53%

Based on the results of the odds ratio test, the Return on Assets (ROA) variable has an odds ratio value of 16.93, which indicates that every 1% increase in ROA will increase the probability of the company being in a higher Z-Score category by 1.693%, so that the risk of financial distress tends to decrease. The Current Ratio (CR) variable has an odds ratio value of 1.68, which means that every 1% increase in CR will increase the probability of the company being in a higher Z-Score category by 68%, so that the company's ability to avoid financial distress is better. On the other hand, the Debt to Equity Ratio (DER) variable has an odds ratio value of 0.40, which indicates that every 1% increase in DER will reduce the probability of the company being in a higher Z-Score category by 60%, so that the risk of financial distress tends to increase. Meanwhile, the Total Asset Turn Over (TATO) variable does not have a significant influence on the Z-Score, so changes in the activity ratio are not proven to affect the level of financial distress in consumer cyclical sector companies.

Hypothesis Test (t-Test)

This study used 82 observational data with 5 variables, thus obtaining a degree of freedom (df) of 77, a significance level (α) of 0.05, and a t-table value of 1.66488. Based on the results of the partial test (t-test), the

profitability variable proxied by Return on Assets (ROA) has a calculated t-value of 3.695 which is greater than the t-table (1.66488), a significance value of 0.045 which is smaller than 0.05, and a positive estimated coefficient of 12.040. The results indicate that ROA has a positive effect on the Z-Score, so that profitability has a negative effect on financial distress and H_{a1} is accepted. The liquidity variable proxied by the Current Ratio (CR) has a calculated t value of 5.248, a significance value of 0.022, and a positive estimated coefficient of 0.518, thus indicating that liquidity has a positive effect on the Z-Score and a negative effect on financial distress, thus H_{a2} is accepted. The leverage variable proxied by the Debt to Equity Ratio (DER) has a calculated t value of 6.634, a significance value of 0.010, and a negative estimated coefficient of -0.923, which indicates that leverage has a negative effect on the Z-Score or a positive effect on financial distress, so that H_{a3} is accepted. Meanwhile, the activity variable proxied by the Total Asset Turn Over (TATO) has a calculated t value of 1.423 which is smaller than the t table and a significance value of 0.233 which is greater than 0.05, so it has no effect on financial distress and H_{a4} is rejected.

DISCUSSION

The Effect of Profitability on Financial Distress

The research results show that profitability, as measured by Return on Assets (ROA), has a negative effect on financial distress. This finding suggests that the greater a company's ability to generate profits from its assets, the lower the likelihood of experiencing financial distress. This is particularly relevant in the post-COVID-19 pandemic period. Following the pandemic, many companies faced increased operating costs, changing consumer consumption patterns, and inflationary pressures that reduced consumer purchasing power. Under these conditions, companies that were able to maintain profitability had greater internal funding sources to support operations, meet obligations, and make investments without having to rely on external funding (Swara, 2021). Conversely, companies with low profitability were more vulnerable to financial stress due to limited cash flow generation from their operations.

These results are in line with previous research which states that companies with high levels of profitability tend to have lower financial risks and are better able to avoid financial distress because they have adequate internal resources to face economic uncertainty (Mehmetaj and Hajdari, 2025; Xie and Zheng, 2023). On the other hand, a decline in profitability will increase a company's vulnerability to financial risks and financial distress, as found in various industrial sectors during the COVID-19 pandemic, including the banking and manufacturing sectors (Ali et al., 2023). This situation is relevant to the 2020–2022 study period, which encompasses the pandemic and the early stages of economic recovery. Many companies faced pressures due to declining demand, supply chain disruptions, and increased operating costs. Even for large-scale oil and gas companies in India, the pandemic caused a significant decline in revenue and profits, increasing their vulnerability to economic shocks (Ali et al., 2023).

In addition, the company's ability to maintain profitability is also related to the availability of internal resources such as retained earnings which can be used to support operations and plan business recovery strategies during times of crisis (Pini et al., 2023; Sebestová, 2021). Reinvesting profits into the company has proven to be a relatively safe strategy for maintaining financial stability amidst economic uncertainty (Sebestová, 2021). Companies that allocate their resources to strategic investments, including intangible assets such as organizational capital and intellectual property, also tend to have better profitability and resilience in the face of external pressures (Pini et al., 2023). In the post-pandemic context, the results of this study indicate that profitability is an important indicator in maintaining business sustainability because companies are required to be able to balance short-term financial limitations with long-term investment needs to maintain competitiveness and business continuity (Ahmed, 2025). Therefore, profitability not only reflects the company's financial performance, but also functions as a protection mechanism against the risk of financial distress amidst the ongoing economic uncertainty.

The Effect of Liquidity on Financial Distress

The research results show that liquidity, as measured by the Current Ratio (CR), has a negative effect on financial distress. This means that the greater a company's ability to meet its short-term obligations, the lower its risk of experiencing financial distress. These results can be explained by post-pandemic conditions characterized by increased economic uncertainty and fluctuations in corporate cash flows. In the consumer cyclical sector, sales are heavily influenced by consumer purchasing power, which tends to fluctuate with economic conditions. In such a situation, companies with high liquidity will be better able to maintain their operational activities even if there is a decrease in revenue or a slowdown in market demand.

These results are in line with various studies which state that liquidity is an important factor in reducing the risk of financial distress because companies that have adequate current assets will be better able to meet short-term obligations, avoid the risk of default, and maintain the company's operational stability (Reddy, 2012; Rokhayati et al., 2024). Even in the consumer cyclical sector, liquidity has proven to be one of the most influential factors on financial distress compared to several other financial indicators (Rokhayati et al., 2024). This finding is particularly relevant considering that the 2020–2022 research period coincided with the COVID-19 pandemic and the beginning of economic recovery, when many companies experienced declining revenues, slowing business activity, and

increased financial pressure due to high levels of economic uncertainty (Karlinah et al., 2024; Yulesta et al., 2025). In such conditions, companies that have a good level of liquidity tend to be better able to meet their operational and financial obligations without having to rely on high-cost external funding or carry out forced asset sales (Nurmalasari et al., 2024).

In addition, the results of this study are also relevant to the current economic conditions which are still characterized by various uncertainties, such as inflationary pressures, disruptions to the global supply chain, and geopolitical tensions which can affect people's purchasing power and company performance (Prihatiningtias et al., 2026; Winarsih et al., 2026). In the cyclical consumer sector, which is highly sensitive to changes in economic conditions, the ability to maintain liquidity becomes increasingly important because fluctuations in demand can directly impact a company's cash flow. Companies with good liquidity management will have greater flexibility in dealing with declining sales and increasing operating costs. Conversely, companies with low liquidity levels will be more vulnerable to financial difficulties when facing economic shocks. These findings also support the concept of risk governance, which emphasizes that financial risk management, including liquidity management, can increase company resilience and reduce the potential for financial distress in a dynamic business environment (Prihatiningtias et al., 2026). Furthermore, the use of the Altman Z-Score model in this study further strengthens the importance of liquidity as one of the main components in assessing a company's financial health and detecting potential financial distress early on (Prihatiningtias et al., 2026; Reddy, 2012). Therefore, liquidity can be seen as an important early warning system indicator for management, investors, and creditors in evaluating the company's ability to survive amidst ongoing economic uncertainty.

The Effect of Leverage on Financial Distress

The results of the study indicate that leverage, as proxied by the Debt-to-Equity Ratio (DER), has a positive effect on financial distress. This means that the higher the proportion of debt used by a company, the greater the risk of the company experiencing financial difficulties. These results align with various previous studies that found leverage to be a key factor influencing financial distress, where companies with high debt levels tend to face greater risks in meeting their financial obligations, especially during times of economic slowdown or uncertainty (Karlinah et al., 2024; Rokhayati et al., 2024).

This finding is particularly relevant when compared to the economic conditions during the 2020–2022 study period, which encompassed the COVID-19 pandemic and the early stages of economic recovery. During this period, many companies experienced declining revenues due to weakening purchasing power, restrictions on economic activity, and disruptions to global supply chains. Under these conditions, companies with high leverage face greater pressure because they must continue to meet their debt principal and interest payments despite declining revenues. Previous research has shown that companies with high leverage are the most vulnerable to financial distress during the pandemic due to the difficulty of maintaining sufficient cash flow to meet their financial obligations (Karlinah et al., 2024; Mouton and Pelcher, 2023). This shows that excessive use of debt can increase a company's vulnerability to unexpected economic shocks.

In the consumer cyclical sector, the influence of leverage on financial distress becomes increasingly important because this sector's characteristics are highly dependent on consumer consumption levels. When purchasing power declines due to economic uncertainty, inflation, or slowing economic growth, company sales tend to decline, thus reducing the company's ability to generate cash flow to repay debt. This condition causes companies with a high Debt to Equity Ratio to have a greater risk of financial distress than companies with a more conservative capital structure (Karlinah et al., 2024; Rokhayati et al., 2024). Therefore, leverage not only reflects the company's funding sources, but also reflects the level of financial risk that the company must bear in facing changes in economic conditions.

In addition, experience during the pandemic shows that many companies are adjusting their capital structure by reducing their leverage levels to avoid the risk of insolvency and maintain business continuity (Mouton and Pelcher, 2023). This strategy remains relevant today because the post-pandemic global economic conditions are still characterized by various challenges, such as inflationary pressures, rising interest rates, energy price volatility, and geopolitical uncertainty that can increase corporate funding costs (Ginn and Saadaoui, 2025; Mouton and Pelcher, 2023). In such situations, companies with high debt levels will face increasing financial burdens due to rising borrowing costs and financing risks. Conversely, companies that are able to maintain a balance between debt and equity will have greater financial flexibility in the face of economic uncertainty.

The results of this study indicate that optimal capital structure management is a critical factor in maintaining the financial health of companies in the consumer cyclical sector. Companies need to be cautious about increasing their use of debt and consider their profitability and cash flow before making financing decisions. This finding also reinforces the importance of leverage as an early warning system indicator in detecting potential financial distress, so that it can be a consideration for management, investors, creditors, and regulators in assessing the level of a company's financial risk amidst ongoing economic dynamics (Papíková et al., 2022).

The Influence of Activities on Financial Distress

The results of the study indicate that the activity ratio, proxied by Total Asset Turnover (TATO), has no effect on financial distress. This finding indicates that a company's efficiency in utilizing assets to generate sales does not necessarily explain the company's financial distress. These results indicate that a company's ability to utilize assets to generate sales does not necessarily explain financial distress in consumer cyclical companies. In other words, an increase or decrease in the asset turnover rate does not directly affect a company's likelihood of experiencing financial distress. This finding aligns with several previous studies that found TATO to have no significant impact on a company's profitability or financial condition, thus its role in predicting financial distress is relatively weaker than other financial ratios (Alifah et al., 2013; Shahniah et al., 2020; Windasari and Zakiah, 2025).

The insignificant influence of TATO can be explained by the characteristics of the consumer cyclical sector, which is heavily influenced by changes in consumer preferences and behavior. During the 2020–2022 study period, companies faced abnormal conditions due to the COVID-19 pandemic and the gradual economic recovery process. In such situations, a company may still be able to generate sales from its assets, but increased sales are not always accompanied by increased profits or improved financial condition. High operational costs, rising logistics costs, supply chain disruptions, and changes in consumer consumption patterns mean that efficient asset utilization does not automatically improve a company's financial health. This explains why TATO is not a primary factor in determining financial distress compared to profitability, liquidity, and leverage ratios, which more directly reflect a company's ability to generate profits, meet obligations, and manage its funding structure (Ha et al., 2023; Rokhayati et al., 2024).

Furthermore, several studies have shown that the influence of TATO on financial distress is contextual and can vary across industry sectors. In certain sectors, TATO can be a predictor of financial distress, but its influence tends to decrease at a certain level and is heavily influenced by prevailing economic conditions (Alifah et al., 2013; Tay and Yeoh, 2025). In the context of the COVID-19 pandemic, high economic uncertainty has caused many companies to focus more on survival strategies than on improving operational efficiency. Various government policies, such as fiscal stimulus, credit relaxation, and national economic recovery programs, have also helped companies maintain business continuity, even though several operational indicators, including TATO, have shown less than optimal performance (Tay and Yeoh, 2025). As a result, the relationship between efficient use of assets and financial distress became less apparent during the study period.

These findings are also relevant to the current economic climate, which continues to face challenges such as inflationary pressures, rising interest rates, energy price volatility, and global geopolitical uncertainty. In such situations, companies tend to prioritize managing liquidity, profitability, and capital structure over simply increasing asset turnover (Kristanti and Dhaniswara, 2023; Saad et al., 2025). While asset efficiency is crucial for supporting company operations, the ability to maintain cash flow, generate profits, and manage debt burdens has been shown to be more crucial in preventing financial distress. Therefore, this study's findings reinforce the finding that TATO is not a primary indicator in predicting financial distress in consumer cyclical companies, particularly during periods marked by economic uncertainty and significant changes in consumer behavior.

CONCLUSION

This study aims to analyze the effect of profitability ratios, liquidity ratios, leverage ratios, and activity ratios on financial distress in consumer cyclical companies listed on the Indonesia Stock Exchange for the 2020–2022 period. Based on the results of ordinal logistic regression analysis, it was found that the profitability ratio, proxied by Return on Assets (ROA), and the liquidity ratio, proxied by the Current Ratio (CR), negatively affected financial distress. These results indicate that companies with better profit-generating and short-term obligation-saving capabilities tend to have a lower risk of financial distress. Conversely, the leverage ratio, proxied by the Debt to Equity Ratio (DER), positively affected financial distress, indicating that the higher the level of debt usage in a company's funding structure, the greater the company's risk of financial distress. Meanwhile, the activity ratio, proxied by Total Asset Turnover (TATO), did not affect financial distress, thus asset utilization efficiency has not been proven to be a major factor determining a company's financial distress.

The findings of this study indicate that during the 2020–2022 period, marked by the COVID-19 pandemic and the economic recovery process, factors related to a company's ability to generate profits, maintain liquidity, and manage its capital structure played a more significant role in influencing financial distress than asset utilization efficiency. This condition is also still relevant to the current economic situation, which is characterized by global uncertainty, inflationary pressures, interest rate fluctuations, and changes in consumer behavior. Therefore, profitability, liquidity, and leverage can be used as key indicators in detecting potential financial distress in companies in the consumer cyclical sector.

Theoretically, this study strengthens the literature on financial distress by demonstrating that financial ratios remain an effective early warning system in identifying the risk of financial distress in companies. Practically, the results of this study can be used as considerations for company management in developing more adaptive financial strategies, for investors and creditors in assessing the level of corporate risk, and for regulators in monitoring the

financial health of companies in sectors sensitive to changes in the economic cycle. Furthermore, further research is recommended to include non-financial variables or macroeconomic factors, such as inflation, interest rates, economic growth, and corporate governance, to provide a more comprehensive picture of the factors influencing financial distress.

However, this study has several limitations. First, the financial distress measurement only uses the Modified Altman Z-Score model, so the results cannot be compared with other financial distress prediction models. Second, this study only uses one proxy for each financial ratio: ROA, CR, DER, and TATO, so it does not describe all aspects that can be measured by each ratio. Therefore, future research is recommended to use a more diverse range of financial distress prediction models and financial ratio proxies to obtain more comprehensive results.

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