

Analyzing financial distress in the Indonesian Tourism Sector: A case study during the COVID-19 Pandemic

Maria Angelina Laurenzia Viviani Konten, Sari Yuniarti*

Department of Diploma in Banking and Finance, University of Merdeka Malang
Jl. Terusan Raya Dieng No. 62-64 Malang, 65146, Indonesia

*Corresponding Author: E-mail: sari.yuniarti@unmer.ac.id

Abstract

The COVID-19 pandemic has had a significant negative impact on the financial state of various businesses in the Indonesian tourism industry. To prevent bankruptcy from occurring, it is important to assess the financial situation of affected companies to estimate financial distress. This research aims to analyze the effect of return on assets, current ratio, and debt to total asset ratio on financial distress conditions in tourism sub-sector service companies listed on the Indonesia Stock Exchange for the 2019-2022 period. The population in this research were all tourism sub-sector service companies listed on the Indonesia Stock Exchange that published their financial reports in 2019-2022. The sample was searched by purposive sampling and there were 32 companies and obtained 128 observation data consisting of 112 samples of financial distress companies and 16 samples of non-financial distress companies. Financial distress criteria are measured by interest coverage ratio. The statistical analysis used in this research is logistic regression. The results of this research indicate that partial return on assets and debt to total asset ratio affect financial distress, while the current ratio does not affect financial distress. Simultaneously return on assets, current ratio, and debt to total asset ratio affect financial distress.

Keywords: COVID-19, Financial distress, Tourism

©2023 Jurnal Penelitian

This is an open access article distributed under the CC BY-SA 4.0 license
(<https://creativecommons.org/licenses/by-sa/4.0/>)

Article Info:

Received: 2023-04-06

Revised: 2023-05-21

Accepted: 2023-06-04

Published: 2023-06-29

How to cite:

Konten, M. A. L. V., & Yuniarti, S. (2023). Analyzing financial distress in the Indonesian Tourism Sector: A case study during the COVID-19 Pandemic. *Jurnal Penelitian*, 20(1), 55-68.
<https://10.26905/jp.v20i1.11277>

1. Introduction

The financial condition of Indonesian businesses in the tourism, restaurant and hotel sectors has undoubtedly been affected by the decline in the number of foreign tourists visiting Indonesia. This is not only happening in Indonesia, but other countries, including countries in Asia, Europe and North America, are also experiencing a decline in income in this sector. Foreign exchange earnings from the tourism sector experienced a drastic decline starting in 2020 and 2021, where this year was the peak of the high number of Covid-19 cases and many countries had to implement a lockdown system, including Indonesia. Conditions like this have the potential to cause financial distress for companies in the tourism industry.



E-ISSN: 2809-7688

P-ISSN: 1410-7295

Financial distress is defined as a state of financial difficulty before the company finally experiences bankruptcy (Yoda et al., 2021). Low sales, high costs, inflated budgets and prices, insufficient company cash flow to maintain business operations, insufficient account balances, and poor debt management are indicators of financial distress (Pietrzak, 2021). Investors of course will not choose companies at random. Shareholders will put their money into businesses with a positive financial reputation. Investors will not lend money to a business that cannot later repay the loan. Therefore, using a company's financial records as a reference and guide will be important when making judgments regarding this matter.

The COVID-19 pandemic has had a significant negative impact on the financial condition of various businesses in the tourism, restaurant, and hotel industries. In fact, some businesses end up having difficulty meeting their responsibilities. To prevent bankruptcy from occurring, it is important to assess the financial situation of the affected companies to estimate financial distress. Company financial reports can be used to measure or observe financial difficulties. The condition of the company in the future can be predicted using indicators of the company's financial performance. This indicator is obtained through reviewing financial ratios in financial report data published by the company. According to Kusuma & Sumani (2017), the financial ratios that are often used to predict financial distress are profitability ratios, liquidity ratios and leverage ratios.

Profitability ratios are used to determine how much profit or loss a company generates. Additionally, based on the total profit generated by the company, this ratio is used to evaluate the efficiency of an organization's financial management. Referring to (Rissi & Herman, 2021) The possibility of a company experiencing financial difficulties is negatively and significantly correlated with the profitability ratio. In other words, the possibility of significant financial difficulties if the company's profitability ratio is low. Companies are more vulnerable to financial difficulties if their profitability ratios are poor.

The liquidity ratio is the second ratio examined in this research to find out how it affects financial distress. Liquidity ratios are used to assess a company's ability to use current assets to pay short-term liabilities. Referring to research conducted by Karimah & Sukarno (2023) and Yudiawati & Indriani (2016) found that there was an influence of liquidity ratios on company financial distress. Due to the fact that the company highlights the importance of financial risk assessment, the liquidity ratio becomes significant. If a company has liquidity problems, then the company is considered to be experiencing financial distress. A company is less likely to experience financial distress the more liquid the company is.

The leverage ratio is the third financial ratio examined in this research to determine its impact on financial distress. This ratio evaluates the extent to which a company's assets are financed by debt. Based on research by Karimah & Sukarno (2023) and Yudiawati & Indriani (2016), results were obtained which stated that the company's leverage ratio had an effect on financial distress. The result is a high leverage ratio indicating that the possibility of financial distress will also be significant. Based on the leverage ratio, debt is a form of funding that attempts to finance a company's assets above and beyond any capital or equity the company may have. If company debt is not handled effectively, this can result in financial distress problems. Any debt a company has will affect risk and return.

Many parties have conducted research on financial distress. However, what is interesting about this research is that it was conducted after the COVID-19 outbreak in the tourism industry, which at that time was the worst affected. Since there have been many changes in various sectors as a result of the pandemic and there is a need for adaptations and new studies on this topic, it is very important to do this. This research aims to analyze the determination of financial performance factors that give rise to the potential for

financial distress in tourism sector companies in Indonesia. This study begins by revealing the background to the COVID-19 pandemic which has caused losses in the tourism sector and created the potential for financial distress. The second part is to explain the relationship between profitability, liquidity and leverage which is thought to influence the possibility of financial distress. The third section explains the research method used to answer the research objectives, namely by comparing companies affected by financial distress and non-financial distress in tourism sector companies in Indonesia. The fourth section explains the results and discussion of the results of research data processing, and the fifth section is analyzing and synthesizing the research results.

2. Hypotheses Development

The influence of return on assets in predicting the occurrence of financial distress

Return on Assets (ROA) is a financial ratio that measures a company's efficiency in generating profits from the total assets owned. ROA is calculated by dividing net profit by the company's total assets. ROA provides an overview of how efficiently a company uses its assets to generate profits. ROA is an important financial performance indicator. Companies that generate low ROA may face problems in generating profits from their assets. If ROA continues to decline over time, this could be a sign of structural problems in the company that may cause financial distress in the future. A low ROA can indicate that the company is having difficulty paying its debts because the profits generated are not sufficient to pay off financial obligations. This can cause companies to be trapped in a debt cycle which has the potential to trigger financial distress (Ashraf et al., 2019; Think et al., 2021). ROA also reflects how efficiently a company manages and uses its assets to generate income. Companies with low ROA may experience operational efficiency problems which can lead to high costs and low revenues, which in turn can cause financial distress. ROA that continues to decline can also be an indication of a decline in the company's competitiveness in the market. If companies fail to compete effectively in the market, their revenues and profits could be eroded, which could ultimately lead to financial distress. Research conducted by Azky et al. (2021) and Rinofah et al. (2021) found that ROA has a negative and significant effect in predicting the possibility of financial distress.

H₁: Return on assets has a negative effect on the possibility of financial distress

The influence of the current ratio in predicting the occurrence of financial distress

Current ratio is a financial ratio that measures a company's ability to pay off its short-term obligations using current assets. The current ratio is calculated by dividing total current assets by total current liabilities. This ratio provides an idea of how well a company can meet its short-term obligations using assets that are easily converted into money in a short time.

The current ratio reflects the company's ability to pay off its short-term obligations using the assets it owns. A company with a low current ratio may have difficulty meeting its short-term obligations as they fall due, which can be an early sign of financial distress. A low Current Ratio can also indicate that the company is at risk of lacking cash to meet its short-term obligations. If a company cannot raise enough cash in a short time to pay its debts, this can cause financial distress, especially if the debt has an urgent maturity (Kusuma & Sumani, 2017). The current ratio reflects efficiency in managing the company's working capital. Companies with a low current ratio may experience problems in managing their cash flow properly, such as slow payment of receivables or inventory that is too high, which in the end can cause financial distress (Yudiawati & Indriani, 2016). A sudden decline in the current ratio could be an indication of changes in market conditions that affect the company's cash flow. A decrease in receivable payments could indicate that the debtor is experiencing financial difficulties, which could lead to a decrease in company income and potential financial distress.

H₂: Current ratio has a negative effect on the possibility of financial distress

The influence of the debt to asset ratio in predicting the occurrence of financial distress

Debt to Asset Ratio (DAR) is a financial ratio that measures how large a share of a company's total assets is financed by debt. This ratio is calculated by dividing a company's total debt by its total assets. DAR provides an idea of how much debt a company uses to fund its assets (Rissi & Herman, 2021).

A high DAR indicates that most of the company's assets are funded by debt. Companies with high levels of debt have a higher risk of facing financial distress because they have to pay significant interest and principal, especially if their income decreases or their cash flow is disrupted. DAR reflects the level of financial risk taken by a company. If a company has difficulty paying its debts or is unable to obtain additional financing, this can cause financial distress (Amanda & Tasman, 2019). Companies with high DAR may have difficulty paying their debts if revenues fall or cash flow is disrupted. This can result in delays in debt payments or even default, which in turn can trigger financial distress. Investors and creditors tend to view a high DAR as an indication of higher risk. If investors and creditors lose confidence in a company's ability to manage its debt, this can result in a decline in share prices, increased borrowing costs, or even loss of access to additional sources of financing, all of which can lead to financial distress.

H3: Debt to asset ratio has a positive effect on the possibility of financial distress

Based on theoretical and empirical studies, a research model framework was developed in Figure 1.

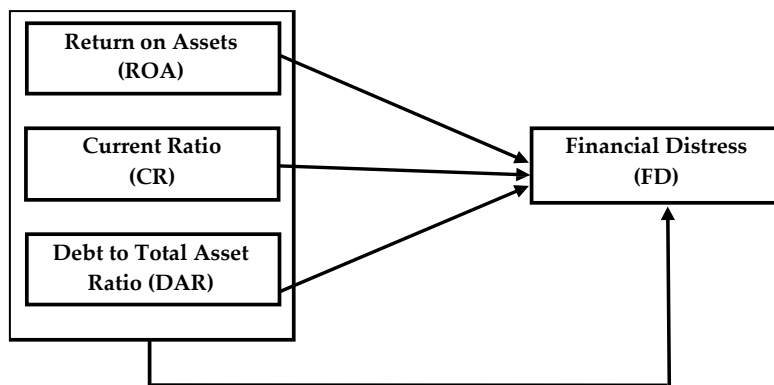


Figure 1. Research model framework

3. Methods, Data, and Analysis

The population in this research consists of 47 tourism subsector companies listed on the Indonesia Stock Exchange between 2019 and 2022. This research uses a purposive sampling method to select a representative sample by complying with a series of predetermined standards. The sampling criteria used include tourism subsector companies registered on IDX and which present complete financial report data for the period 2019 to 2022 on an ongoing basis. The results of sample selection were 32 companies, which produced 128 observation data. Of this number, 112 sample companies experienced financial difficulties and 16 sample companies did not experience financial difficulties (non-financial distress). Data collection techniques in the form of documentation techniques are by collecting annual financial reports in the form of balance sheets and profit and loss reports from companies.

Dependent variable (Financial Distress)

Financial Distress (ICR) is the dependent variable in this research, which is measured using the Interest Coverage Ratio (ICR), a financial ratio used to determine how well a company can pay interest on unpaid debts. ICR is generally used by lenders, creditors and investors to determine the level of risk of providing capital to a company. ICR is also referred to as the "times interest earned" ratio. A company is categorized as not experiencing financial distress if the $ICR < 1$. ICR is calculated by comparing interest expenses with profit before tax. The ICR formulation is in Equation 1 (Eq. 1).

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest expenses}} \times 100\% \quad (\text{Eq. 1})$$

Independent variables (ROA, CR, and DAR)

The profitability ratio in this research is measured by Return on Assets (ROA). A measure called profitability is used to assess a company's capacity to earn back its financial investments. Profitability ratios are a measure of how profitable a company is. The ROA formulation is in Equation 2 (Eq. 2).

$$\text{ROA} = \frac{\text{EBIT}}{\text{Total Assets}} \times 100\% \quad (\text{Eq. 2})$$

The liquidity ratio in this study is measured by the Current Ratio (CR). Liquidity ratios provide a general idea of a company's capacity to pay off its short-term loans quickly. The CR formulation is in Equation 3 (Eq. 3).

$$\text{CR} = \frac{\text{Current Assets}}{\text{Current Liability}} \times 100\% \quad (\text{Eq. 3})$$

The Leverage Ratio in this study is measured by the Debt to Total Asset Ratio (DAR). The DAR ratio is used to estimate how much of an asset's value is funded by debt. This ratio is very important to determine the company's solvency or capacity to pay all its long-term commitments. DAR formulation in Equation 4 (Eq. 4).

$$\text{DAR} = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100\% \quad (\text{Eq. 4})$$

Data processing is carried out by calculating predetermined financial ratios, namely return on assets, current ratio, and debt to total asset ratio. The results of calculating these ratios are used as data in statistical testing. The data obtained were processed using IBM SPSS Statistics 20 software using descriptive statistical analysis techniques, analysis of the overall model (Overall Model Fit), testing the suitability of the regression model (Goodness of Fit Test), coefficient of determination (Nagelkerke's R Square), classification matrix, test Wald (partial t test), and Omnibus Tests of Model Coefficients (simultaneous F-test) with one dependent variable (ICR) as a dummy variable and three independent variables, namely ROA, CR, and DAR. Apart from that, descriptive statistical analysis was also carried out. The purpose of descriptive statistical tests is to evaluate and clarify the characteristics of the observed sample. This procedure is carried out by summarizing the data obtained, looking at the maximum, minimum values, mean, and standard deviation.

Logistic regression analysis was used to analyze the data in this study statistically. According to Novyarni & Dewi (2020), logistic regression analysis is a regression that tests the possibility that independent variables can predict the dependent variable. Normal

distribution of independent variables is not required for logistic regression analysis. Therefore, normality tests, heteroscedasticity tests, and classical assumption tests on independent variables are not needed for logistic regression analysis. There are four tests in logistic regression analysis, namely Overall Model Fit, Goodness of Fit Test, Coefficient of Determination (Nagelkerke's R Square), and Classification Matrix. The following is an explanation of the four model tests:

Overall Model Fit: This test is used to ascertain whether all independent variables have an impact on the dependent variable. The Likelihood function is the basis of the statistics used. The probability that a proposed model adequately explains the input data is known as the log likelihood. The $-2\log$ likelihood value is used to test the null and alternative hypotheses. The regression model is considered better if the $-2\log$ likelihood value for block number = 0 is greater than the $-2\log$ likelihood value for block number = 1. The hypothesis used to test the overall model fit are H_0 and H_1 .

H_0 : The hypothesized model fits the data.

H_1 : The hypothesized model does not fit the data.

The Goodness of Fit Test was carried out using Hosmer and Lemeshow's method, which measures the suitability of the regression model with the chi-square value. This model is used to test the null hypothesis that the model accurately describes empirical data (i.e. the model and data are indistinguishable from each other, in this case the model is said to be fit). This hypothesis can be explained as follows: (1) If the probability value (P-Value) ≤ 0.05 (significance level), then the null hypothesis (H_0) is rejected. This means that there is a significant difference between the model and the observed values. Thus, the Goodness of Fit Test cannot predict the observed value; (2) If the probability value (P-Value) ≥ 0.05 (significance level), then the null hypothesis (H_0) is accepted. This means that the model matches the observed values. Thus, the Goodness of Fit Test can predict the observed value.

The Nagelkerke R-Square Determination Coefficient can be used to determine the coefficient of determination for logistic regression because its value can be interpreted the same as R-Square in multiple regression. To guarantee that the value ranges from 0 (zero) to 1 (one), the Cox and Snell coefficients are modified using Nagelkerke R-Square. A Nagelkerke R-Square value that is close to zero indicates that the ability of the variables to explain the dependent variable is very limited, while a Nagelkerke R-Square value that is close to one indicates that the independent variables have all the knowledge needed to predict the variability of the dependent variable.

The Classification Matrix is used to test the ability of the regression model to see the possibility of financial distress risks appearing in the company explained by the classification matrix. The correct and incorrect estimated values are calculated in a 2×2 table. The overall accuracy is generated through a classification table

To determine whether the prediction of the dependent variable can be anticipated by the independent variable, the variable assessment procedure in this study uses logistic regression analysis. Financial distress is the dependent variable, and logistic regression provides an equation where this regression is a non-linear regression and the dependent variable is categorical. This model is used because the dependent variable is a dummy variable (financial distress = 1 and non-financial distress = 0). The most basic category of the model produces binary values such as the numbers 0 and 1. The formula for logistic regression is in Equation 5 (Eq. 5).

$$\ln \frac{p}{(1-p)} = ICR_t = Q_0 + Q_1 ROA + Q_2 CR + Q_3 DAR + \varepsilon \quad (\text{Eq. 5})$$

Where: $Ln \frac{p}{(1-p)}$ = Probability of financial distress (dummy variable, 1 if financial distress, 0 if non-financial distress); Q_0 = constant coefficient; Q_{1-3} = independent variable regression coefficient; ROA = Return on Assets; CR = Current Ratio; DAR = Debt to Total Asset Ratio; ϵ = Standard Error.

The Wald test (Partial T Test) basically shows how far the independent variable partially influences the dependent variable. To determine the value of the Wald Test (t test), the significance level is 5%. The decision making criteria: (1) if P-value > 0.05 then H_0 is accepted, meaning that one of the independent variables does not influence the dependent variable. (2) If the P-value < 0.05 then H_0 is rejected, meaning that one of the independent variables influences the dependent variable. Omnibus Tests of Model Coefficients (Simultaneous F Test)

Omnibus tests of model coefficients are simultaneous statistical tests (F test). In this research, we test whether the independent variables simultaneously influence the dependent variable. The significance level is 5%, so the decision making criteria are as follows: (1) if P-Value < 0.05 then H_0 is rejected, meaning the independent variable simultaneously influences the dependent variable. (2) If P-Value > 0.05 then H_0 is accepted, meaning that the independent variables simultaneously do not influence the dependent variable

4. Results

Table 1.
 Descriptive statistics

		ROA	CR	DAR	Valid N (listwise)
All Samples	Min	-713.00	40.00	2.00	128
	Max	428.00	140250.00	1090.00	
	Mean	-48.7266	5037.7344	404.7969	
	Std.	142.03830	16276.80390	248.39505	
Non Financial Distress Samples	Min	.0004	740.00	50.00	16
	Max	109.00	5790.00	480.00	
	Mean	26.5625	1820.0000	274.3750	
	Std.	29.11350	1192.02908	147.23988	
Financial Distress Samples	Min	-713.00	40.00	2.00	112
	Max	428.00	140250.00	1090.00	
	Mean	-59.4821	5497.4107	423,426	
	Std.	148.44066	17355.84668	254.68018	

Based on [Table 1](#), Return on Assets (ROA) for all sample companies has a minimum value of -713.00 and a maximum of 428.00 with an average of -48.7266 and a standard deviation of 142.03830. This shows that the standard deviation value is greater than the average value, so it can be said that the data is not spread well. Return on Assets in the non-financial distress sample has a minimum value of 0.0004 and a maximum value of 109.00 with an average of 26.5625 and a standard deviation of 29.11350, while the financial distress sample has a minimum value of -713.00 and a maximum of 428.00 with an average of -59.4821 and a standard deviation of 148.44066. These results show that the average Return on Assets in the financial distress sample is smaller than the average Return on Assets in the non-financial distress sample.

The current ratio (CR) of all sample companies has a minimum value of 40.00 and a maximum value of 140250.00 with an average of 5037.7344 and a standard deviation of 16276.80390. This shows that the standard deviation value is greater than the average value, so it can be said that the data is not spread well. The current ratio in the non-financial distress sample has a minimum value of 740.00 and a maximum value of 5790.00 with an average of 1820.0000 and a standard deviation of 1192.02908, while the financial distress

sample has a minimum value of 40.00 and a maximum value of 140250.00 with an average of 5497.4107 and a standard deviation of 17355.84668. These results show that the average current ratio in the financial distress sample is greater than the average current ratio in the non-financial distress sample.

The Debt to Asset Ratio (DAR) of all sample companies has a minimum value of 2.00 and a maximum value of 1090.00 with an average of 404.7969 and a standard deviation of 248.39505. This shows that the standard deviation value is smaller than the average value, so it can be said that the data is spread well. The Debt to Asset Ratio in the non-financial distress sample has a minimum value of 50.00 and a maximum value of 480.00 with an average of 274.3750 and a standard deviation of 147.23988, while the financial distress sample has a minimum value of 2.00 and a maximum value of 1090.00 with an average of 423.426 and a standard deviation of 254.68018. These results show that the average Debt to Asset Ratio in the financial distress sample is greater than the average Debt to Asset Ratio in the non-financial distress sample.

Analysis data statistics

Testing done with compare mark -2log likelihood beginning with mark -2log likelihood on step next. If the value -2log likelihood block number = 0 is bigger from mark -2log likelihood blocks number = 1, so decrease (-2log likelihood) indicating this regression model fit.

Table 2.

Overall results model fit

Step	-2Log Likelihood
0	96.453
1	74.183

Based on Table 2, on steps 0 testing with just use constant (No involve variable independent) obtained mark -2log likelihood as big as 96,453. Temporary That, testing on steps 1 (testing with involving independent variables) obtained a value of -2 log likelihood amounting to 74,183, where the value is smaller than 96,453. With thereby, can said happen decline on mark -2log likelihood and model regression which either or H₀ is accepted. In other words, the addition of independent variables (return on assets, current ratio, and debt to total asset ratio) is able to improve the fit or good model.

Goodness of Fit Test used to test the null hypothesis that whether the empirical data fits the model (there is no difference between the model and the data so the model can be said to be fit. The test results are presented in Table 3.

Table 3.

Results of Hosmer and Lemeshow's Goodness of fit test

Step	Chi-Square	df	Sig.
1	5.259	8	.730

Based on Table 3, it can be seen that the chi square value is 5.259 with a significance value of 0.730. This shows that the significance value is greater than the α significance level ($0.730 \geq 0.05$). Thus, the null hypothesis (H₀) is accepted and the research model is classified as fit or good and feasible to explain the research variables, namely return on assets, current ratio, and debt to total asset ratio on financial distress conditions in tourism sub-sector service companies on the Indonesian Stock Exchange for the 2019-2022 period.

Coefficient Determination (Nagelkerke's R Square) is used to find out how big the ability is model in explaining the independent variables of the variables dependent. The coefficient of determination in logistic regression is seen from Nagelkerke R-Square in Table 4.

Table 4.
Model summary

Step	-2Log Likelihood	Cox and Snell R - Square	Nagelkerke's R - Square
1	74.183 ^a	.160	.302

Based on results testing in Table 4, there is a Cox and Snell's R-Square value of 0.160 and Nagelkerke' R Square as big as 0.302. Matter this show that variable dependent (financial distress) which can be explained by variables independent (return on assets, current ratio, and debt to total assets ratio) of 30.2%. In other words, the influence of the three variables independent, namely return on assets, current ratio, and debt to total the asset ratio is 30.2% and the remaining 69.8% is explained by other variables outside this research.

The classification matrix is used to explain the strength of regression model to predict the possibility of financial distress. The results of the classification matrix are presented in Table 5.

Table 5.
Classification matrix

Step	Observed	Predicted			
		ICR		Percentage Correct	
		Non-Financial Distress	Financial Distress		
1	ICR	Non-Financial Distress	3	13	18.8
		Financial Distress	1	111	99.1
Overall Percentage					89.1

Based on the results of the classification test in Table 5, it can be seen that of the 16 non-financial distress samples, 3 samples or 18.8% can be correctly predicted to be non-financial distress companies, and 13 samples can be predicted to have the potential to experience financial distress. On the other hand, of the 112 samples indicated as experiencing financial distress, 111 samples or 99.1% could be correctly predicted to experience financial distress, and 1 sample was predicted not to experience financial distress. Overall, it shows that 3 + 111 = 114 samples out of 128 samples or 89.1% of samples can be predicted correctly by this logistic regression model.

Table 6.
Moderated logistic regression test results (Wald Test)

Variables	B	S.E	Wald	Sig.
ROA	-.097	.036	7.458	.006
CR	.000	.000	2.995	.084
DAR	.007	.002	9.537	.002
Constant	-.938	.820	1.307	.253

Dependent Variable: ICR

Based on Table 6, the results of the logistic regression analysis, the Equation 5 (Eq. 5).

$$ICR = -0.938 - 0.097ROA + 0.000CR + 0.007DAR + \varepsilon \quad (\text{Eq. 5})$$

The results of logistic regression testing show that the return on assets variable has a negative and significant effect on financial distress. This can be seen where the significance value of 0.006 is smaller than α (alpha) significance level of 0.05 ($0.006 < 0.05$) and the beta correlation value is -0.097. These results indicate that the first hypothesis (H_1) in this study is accepted. Therefore, it can be said that the higher the return on assets of a company, the lower the possibility of the company experiencing financial distress. This can be seen from the average return on assets in non-financial distress companies, namely 26.5625, which is greater than the average return on assets in companies experiencing financial distress of -59.4821.

The results of logistic regression testing show that the current ratio variable has a positive but not significant effect on financial distress. This can be seen where the significance value of 0.084 is greater than α significance level of 0.05 ($0.084 > 0.05$) and the beta correlation value is 0.000. These results indicate that the second hypothesis (H_2) in this study was rejected.

The results of logistic regression testing show that the debt to total asset ratio variable has a positive and significant effect on financial distress. This can be seen from the table above where the significance value of 0.002 is smaller than α significance level of 0.05 ($0.002 < 0.05$) and the beta correlation value is 0.007 which indicates a positive relationship. These results show that the third hypothesis (H_3) in this study is accepted. Therefore, it can be said that the higher the debt to total asset ratio of a company, the higher the possibility of the company experiencing financial distress. This can be seen from the average debt to total asset ratio in non-financial distress companies, namely 274,375, which is smaller than the average debt to total asset ratio in companies experiencing financial distress of 423,426.

Overall regression coefficient testing for all variables was carried out using the omnibus test of model coefficient (F-test), the results of which are presented in [Table 7](#).

Table 7.
Results Omnibus Tests of model coefficients

	Chi-square	df	Sig.
Step	22.271	3	.000
Block	22.271	3	.000
Model	22.271	3	.000

Based on [Table 7](#) of the Omnibus Test results, the chi square value (decrease in the value of -2log likelihood) is 22.271 with a significance value of 0.000. This significance value is smaller than the α significance level of 5% or 0.05 ($0.000 < 0.05$) which means that there is a significant influence of the 3 (three) independent variables return on assets, current ratio, and debt to total asset ratio, which together can explain the occurrence of financial distress conditions.

5. Discussion

The influence of profitability ratios (ROA) on financial distress

The research results show that return on assets (ROA) has a significant negative influence in predicting financial distress. ROA is a profitability ratio that measures a company's ability to generate profits based on the use of assets. This ratio not only evaluates how efficient the company is in generating profits from the assets it owns, but also reflects the effectiveness and efficiency of using these assets. Efficient and effective use of assets can reduce costs incurred by the company, thereby increasing the company's ability to generate sufficient funds to operate. With adequate funding, the possibility of a

business experiencing financial problems (financial distress) is reduced. This indicates that ROA has an important role in mitigating a company's financial risk (Rissi & Herman, 2021).

The results also show that company funding becomes more adequate when the company's profits are greater. Large profits can increase the company's cash flow, which in turn can reduce the risk of financial distress. Conversely, small profits can cause negative cash flow and increase the possibility of financial distress.

The results of this research are consistent with the findings of several previous studies conducted by Putri & Erinos (2020) and Azky et al. (2021). These studies also show that ROA has a significant negative influence on financial distress, providing consistent support for the findings in the current research. This confirms that ROA is indeed an important indicator in predicting a company's financial risk. However, the results of this research are not in accordance with Susanti & Takarini (2022) who found the results that profitability has no effect in predicting the occurrence of financial distress.

The influence of liquidity ratios (current ratios) on financial distress

The research results show that the current ratio has a positive but not significant influence in predicting financial distress. The current ratio, which is a liquidity ratio, measures a company's ability to meet its short-term obligations using the current assets it owns.

This difference in results can be influenced by several factors, including differences in research time and the characteristics of the companies studied. The research was conducted after the Covid-19 pandemic, in which the tourism sector was one of the most affected. This pandemic can affect the financial condition of the companies in the sample, including their current ratio.

The standard current ratio used in research is 200%. However, sample data shows that the average current ratio of sample companies is 504%, which indicates that the companies in the sample have excess current assets (overliquid). This excess liquidity can result in idle funds, which if not managed effectively can reduce the company's profitability and increase the risk of financial distress.

This research supports the findings of several previous studies, such as those conducted by Sopian & Rahayu (2017), Amanda & Tasman (2019) and Azky et al. (2021), which shows that the current ratio does not have a significant influence in predicting financial distress. However, these results are not in line with the findings from research conducted by Yudiawati & Indriani (2016) and Susanti & Takarini (2022) which stated that the current ratio has a significant positive influence on financial distress.

It should be noted that excess liquidity, as occurs in the case of a high average current ratio of sample companies, can lead to idle funds. Funds that are not used effectively can reduce a company's profitability, which in turn can increase the risk of financial distress. Therefore, even though the current ratio is not significant in predicting financial distress directly, it should be noted that effective liquidity management is still important to maintain the company's financial stability.

The influence of leverage ratio (Debt to Total Asset Ratio) on financial distress

The research results show that the debt to total asset ratio has a significant positive influence in predicting financial distress. Debt to total asset ratio is a financial ratio used to measure how much of a company's assets are funded by debt as operational capital. This ratio indicates the proportion of a company's total assets funded by debt.

In this context, a high debt to total asset ratio indicates that the company relies on debt on a large scale to fund its operations. This can increase the risk of financial distress because of the obligation to pay interest and principal on debt that must be fulfilled by the company. Furthermore, the higher the ratio of debt to total assets, the greater the possibility that the company will fail to pay its debts (default) in the future. Therefore, an increase in the debt to total asset ratio increases the risk of financial distress.

This finding is in accordance with the assumptions proposed by [Kasmir \(2019\)](#), which states that companies have the potential for greater losses when leverage is high. Conversely, when leverage is low, the company will face a lower risk of loss, especially during an economic downturn.

The results of this research are also consistent with the findings of several previous studies, such as those conducted by [Yudiawati & Indriani \(2016\)](#), [Susanti & Takarini \(2022\)](#), and [Putri & Erinoss \(2020\)](#), which show that the debt to total asset ratio has a significant positive effect in predicting financial distress. This confirms that excessive use of debt can be an important risk factor in causing financial distress in a company.

Thus, wise financial management that pays attention to the company's debt level is an important strategy in reducing the risk of financial distress and maintaining the company's financial stability in the long term.

The influence of return on assets, current ratio, and debt to total asset ratio on financial distress

The research results show that return on assets (ROA), current ratio, and debt to total asset ratio have a simultaneous influence in predicting financial distress in tourism subsector service companies listed on the Indonesia Stock Exchange (BEI) for the 2019-2022 period. This means that these three variables together make a significant contribution in predicting the possibility of financial distress in companies in the tourism sector.

There is a simultaneous relationship between ROA, current ratio, and debt to total asset ratio with financial distress. Even though the current ratio variable does not have a partial influence on financial distress, together (simultaneously) these variables apparently have an influence on the prediction of financial distress.

In fact, financial distress in a company can be influenced by many factors at once, both external and internal factors. ROA, current ratio, and debt to total asset ratio may not individually have a significant impact, but when analyzed together, they may provide a more complete picture of a company's financial health and the likelihood of financial distress.

Therefore, tourism sector company management needs to pay attention not only to one variable, but also to consider the simultaneous relationship between ROA, current ratio, and debt to total asset ratio in managing financial risk and anticipating the potential for financial distress. This emphasizes the importance of a holistic approach to financial analysis and risk management in the tourism sector.

The implications of these three research results for tourism sector companies in Indonesia are very important to consider in managing financial risks and maintaining the sustainability of their operations. Here are some possible implications. Return on assets (ROA) has a negative effect on financial distress. Tourism sector companies in Indonesia need to focus on increasing the efficiency of using their assets to increase ROA. This can be done through strategies such as optimizing the utilization of physical assets and investments that produce higher returns. Financial management must consider ways to reduce operational costs and increase income so that ROA can be increased, thereby reducing the risk of financial distress.

The current ratio is not significant in predicting financial distress. Even though the liquidity of tourism sector companies tends to be high, companies must be careful in managing their liquidity. Having a high current ratio can be a sign that the company has excess current assets (overliquid). It is important for management to manage idle funds efficiently, perhaps through profitable short-term investments or the use of such funds to reduce debt.

Debt to total asset ratio (DAR) has a positive effect on financial distress. Tourism sector companies must be careful in using debt as a source of funding. Although debt can be an important tool for growth, excessive use of debt can increase the risk of financial distress, especially in the context of economic uncertainty such as the COVID-19 pandemic. Financial management must consider a balanced capital structure, paying attention to debt ratios so that they do not exceed safe limits, thereby reducing the risk of financial distress. In a broader context, governments, industry organizations and financial institutions also need to pay attention to these findings in developing supporting policies and programs to help tourism sector companies manage financial risks and overcome the challenges they face.

6. Conclusion

This research aims to analyze the determination of financial ratio factors that influence the for financial distress likelihood. The research results prove that the profitability ratio tested using return on assets has a negative and significant influence in predicting the occurrence of financial distress. Thus, it can be said that the higher the return on assets of a company, the lower the possibility of the company experiencing financial distress. The liquidity ratio tested using the current ratio has a positive but not significant influence in predicting the occurrence of financial distress. The leverage ratio tested using the debt to total asset ratio provides a positive and significant influence in predicting the occurrence of financial distress. Thus, it can be said that the higher the debt to total asset ratio of a company, the higher the possibility of the company experiencing financial distress. Return on assets, current ratio, and debt to total asset ratio provide a simultaneous influence in predicting the occurrence of financial distress. Based on the logistic regression test, the variable that has the greatest influence in predicting the occurrence of financial distress is return on assets which has a beta correlation value of 0.097.

References

- Amanda, Y., & Tasman, A. (2019). Pengaruh likuiditas, leverage, sales growth dan ukuran perusahaan terhadap financial distress pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia (BEI) periode 2015-2017. *Jurnal Ecogen*, 2(3), 453-462. <http://dx.doi.org/10.24036/jmpe.v2i3.7417>
- Ashraf, S., GS Félix, E., & Serrasqueiro, Z. (2019). Do traditional financial distress prediction models predict the early warning signs of financial distress? *Journal of Risk and Financial Management*, 12(2), 55. <https://doi.org/10.3390/jrfm12020055>
- Azky, S., Suryani, E., & Tara, N. A. A. (2021). Pengaruh rasio keuangan terhadap financial distress pada perusahaan jasa sub sektor restoran, hotel & pariwisata yang terdaftar di Bursa Efek Indonesia. *Jmm Unram-Master of Management Journal*, 10(4), 273-283. <https://doi.org/10.29303/jmm.v10i4.691>
- Karimah, I., & Sukarno, A. (2023). Analisis pengaruh current ratio, total asset turnover, return on asset dan debt to equity ratio terhadap financial distress: Studi kasus pada perusahaan otomotif dan komponen yang terdaftar di Bursa Efek Indonesia (BEI) tahun 2018-2021. *Jurnal Ilmiah Manajemen Kesatuan*, 11(1), 145-152. <https://doi.org/10.37641/jimkes.v11i1.1733>
- Kasmir, K. (2019). *Analisis laporan keuangan* (12nd Edition). Jakarta: Raja Grafindo Persada.
- Kusuma, E., & Sumani, S. (2017). Pengaruh likuiditas, leverage dan profitabilitas terhadap financial distress (Z-Score) perusahaan property, real estate, dan manufaktur periode 2014-2016. *Jurnal Manajemen*, 14(1), 1-16. <https://doi.org/10.25170/jm.v14i1.794>

- Novyarni, N., & Dewi, M. (2020). Pengaruh sales growth, leverage, operating capacity dan ukuran perusahaan terhadap prediksi kesulitan keuangan. In *Prosiding Konferensi Nasional Ekonomi Manajemen dan Akuntansi (KNEMA)*, 1(1), 12–22.
- Pietrzak, M. (2021, July). *Can financial soundness indicators help predict financial sector distress?* (Working Paper No. 2021/197). <https://doi.org/10.2139/ssrn.4026397>
- Putri, D. S., & Erinoss, N. R. (2020). Pengaruh rasio keuangan, ukuran perusahaan dan biaya agensi terhadap financial distress. *Jurnal Eksplorasi Akuntansi*, 2(1), 2083-2098. <https://doi.org/10.24036/jea.v2i1.199>
- Rinofah, R., Sari, P. P., & Fidiastuti, F. (2021). Kekuatan rasio likuiditas, aktivitas, leverage, profitabilitas, dan arus kas operasi dalam memprediksi kondisi financial distress perusahaan. *Jurnal Manajemen*, 13(4), 784-794. <https://doi.org/10.30872/jmmn.v13i4.10351>
- Rissi, D. M., & Herman, L. A. (2021). Pengaruh likuiditas, profitabilitas, financial leverage, dan arus kas operasi dalam memprediksi kondisi financial distress. *Akuntansi dan Manajemen*, 16(2), 68-86. <https://doi.org/10.30630/jam.v16i2.143>
- Sopian, D., & Rahayu, W. P. (2017). Pengaruh rasio keuangan dan ukuran perusahaan terhadap financial distress (studi empiris pada perusahaan food and beverage di Bursa Efek Indonesia). *Competitive Jurnal Akuntansi dan Keuangan*, 1(2). <http://dx.doi.org/10.31000/competitive.v1i2.240>
- Susanti, W., & Takarini, N. (2022). Pengaruh likuiditas, profitabilitas, leverage, dan aktivitas dalam memprediksi financial distress pada perusahaan subsektor retail trade yang terdaftar di BEI. *Ekonomis: Journal of Economics and Business*, 6(2), 488-497. <http://dx.doi.org/10.33087/ekonomis.v6i2.591>
- Thinh, T. Q., Tuan, D. A., Huy, N. T., & Thu, T. N. A. (2021). Financial distress prediction of listed companies—empirical evidence on the Vietnamese stock market. *Innovations*, 17(2), 377-388. [http://dx.doi.org/10.21511/imfi.17\(2\).2020.29](http://dx.doi.org/10.21511/imfi.17(2).2020.29)
- Yoda, T. C., Rahim, R., Reswita, Y., & Sari, F. P. (2021). Pengaruh kepemilikan manajerial, likuiditas dan ukuran perusahaan terhadap financial distress studi kasus pada perusahaan perhotelan, restoran dan pariwisata yang terdaftar di Bursa Efek Indonesia periode 2015-2019. *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, 6(3), 632-645. <https://doi.org/10.24815/jimen.v6i3.17377>
- Yudiawati, R., & Indriani, A. (2016). Analisis pengaruh current ratio, debt to total asset ratio, total asset turnover, dan sales growth ratio terhadap kondisi financial distress (Studi kasus pada perusahaan manufaktur yang terdaftar di BEI Tahun 2012-2014). *Diponegoro Journal of Management*, 5(2), 379-391.