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# Analysis of factors that cause financial distress in Islamic commercial banks

Anisa Lestari, Dini Rahmayanti*

Faculty of Islamic Economics and Business, UIN Salatiga, Indonesia

*) Corresponding Author (e-mail: dinirahmayanti10@uinsalatiga.ac.id )

**Abstract**
This research aims to analyze the factors that cause financial distress in Islamic commercial banks in Indonesia so that Islamic banking companies avoid financial difficulties and reduce the possibility of bankruptcy. The population used in this research were 13 Islamic commercial banks registered with the Otoritas Jasa Keuangan (OJK), and sampling used a purposive sampling technique where samples were taken with certain conditions until 9 Islamic commercial banks were selected with a research period of eight years (2015-2022). Data analysis using multiple linear regression and the results obtained showed that the leverage ratio has a negative and significant effect on the occurrence of financial distress, where leverage measurement uses Debt to Equity Ratio (DER) and financial distress measurement uses Z-Score. At the same time, the liquidity ratio has a positive but insignificant effect on financial distress, where liquidity is measured using the Current Ratio (CR).

Keywords: Financial distress, leverage, liquidity

**Abstrak**
Penelitian ini bertujuan untuk menganalisis faktor penyebab financial distress pada bank umum syariah di Indonesia agar perusahaan perbankan syariah terhindar dari kesulitan keuangan dan mengurangi kemungkinan terjadinya kebangkrutan. Populasi yang digunakan dalam penelitian ini sebanyak 13 bank umum syariah yang terdaftar di Otoritas Jasa Keuangan (OJK) dan pengambilan sampel menggunakan teknik purposive sampling dimana sampel diambil dengan ketentuan tertentu hingga terpilih 9 bank umum syariah dengan periode penelitian selama delapan tahun (2015-2022). Analisis data menggunakan regresi linear barganda, dan diperoleh hasil bahwa rasio leverage berpengaruh negatif dan signifikan terhadap terjadinya financial distress, dimana pengukuran leverage menggunakan Debt to Equity Ratio (DER) dan pengukuran financial distress menggunakan Z-Score. Sedangkan rasio likuiditas berpengaruh positif namun tidak signifikan terhadap financial distress, dimana likuiditas diukur menggunakan Current Ratio (CR).

Kata kunci: Kesulitan keuangan, leverage, likuiditas

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## 1. Introduction

It can be said that the Indonesian economy is not always stable, which could pose a risk of financial difficulties. The COVID-19 pandemic several years ago resulted in several company sectors being threatened with bankruptcy, both in the industrial, automotive, and other sectors. This includes Sharia banking companies where financing distribution has decreased. Therefore, stimulus strategies and actions are needed so that finances in Indonesia remain in a safe condition (Effendi, 2020)

Even though COVID-19 attacked Indonesia approximately five years ago, the impact is still felt today; there are new habits after the COVID-19 pandemic, just like anything done *online* that was previously done directly between buyers and sellers or for other daily needs.

A company must have a way or strategy to remain in a safe financial condition in any situation so that if things happen beyond its control, the company can survive. Therefore, a company must avoid losses or problems that make profits difficult. In addition, companies must be able to minimize the use of debt to finance the company itself.

According to Aisyah & Nurhayati (2022), The more companies that exist the more competition between one company and another will be, so companies must be able to maintain a good position so that they are not threatened by bad things that threaten the company, such as losses or financial difficulties (distress). *Financial Distress* is when the company's financial position is not in good condition or can be said to be in a condition of financial difficulty. If this continues, the company could go bankrupt. Bankruptcy is when the company has difficulty fulfilling or carrying out its obligations and duties. The difficulty here is that the company cannot achieve profit. Because the high profits achieved by the company can function to fulfill the needs or obligations that the company must carry out towards customers or other parties, both from outside and within the company itself (Rahmaniah & Wibowo, 2020)

From this definition, it can be concluded that the definition of *financial distress* is that the company's financial condition is unsafe; this does not mean it is problematic, but the company's financial condition is complex, and if it is left for longer and does not look for solutions to prevent it, it will result in bankruptcy. This situation has not yet reached the point where the company will go bankrupt in the short term, but if prolonged, it will trigger bankruptcy.

Judging from the history of the establishment of Sharia commercial banks in Indonesia, Bank Muamalat is one of the oldest Sharia banks and is even a Sharia banking institution that was first established in 1991 in Bandung by the Majelis Ulama Indonesia (MUI) and began operating in 1992. Until 1998, Indonesia only had one bank: General Sharia, and as time went by, it developed one by one.

Apart from that, the merger of Bank Syariah Indonesia from three banks (BRIS, BNIS, and BMS), which was inaugurated on February 1, 2021, aims to strengthen and develop the sharia economy in Indonesia. A merger is a merger of two or more companies to create a better company than before (Nasir & Morina, 2018). By joining these three Sharia banks, bank obligations can be fulfilled more easily, and bank performance will improve (Putri et al., 2023)

Financial distress can also occur in Sharia banking companies. To predict this, it can be calculated using the Z-Score method and looking at the ratios from the calculation results to get the results of where the Sharia banking company is located and what its condition is, whether the company is classified as bankrupt, gray area, or not going bankrupt. With this Z-Score calculation, the higher the Z-Score value of *financial distress*, the company will be said to be safe or not experiencing financial difficulties.

Therefore, it is necessary to analyze the causes of *financial distress* in Islamic commercial banks, especially in Indonesia, so that financial difficulties that attack Islamic commercial banks can be overcome and prevented beforehand. This research analyzes the factors that cause *financial distress* in Islamic commercial banks.

## 2. Literature Review

### ***Signaling Theory***

Signaling theory *is* how a company gives signals to customers/external parties as well as internal parties to the bank itself. The company gives a signal by publishing a financial report containing its financial reports so that it knows how the company is doing. Financial reports are very important to know or assess financial performance, whether it is safe or experiencing *financial distress* in the future. If the financial condition is not good or even threatened with bankruptcy, it must be addressed immediately and the cause analyzed. External parties can analyze by looking at financial reports in terms of *leverage*, liquidity, and profitability (Erayanti, 2019)

Signal theory is a condition where the seller gets information from the buyer directly; with this, the seller can understand more accurately what the buyer wants. So, the signal theory states that the company is the party that must provide company information in the form of financial reports to detect the company's condition. The condition and situation of the company are not hidden, so there needs to be assessment and knowledge from external parties regarding this matter (Assaji & Machmuddah, 2019)

So, it can be concluded that this signal theory is the connection between external parties and the company where there is a need for knowledge about the conditions and circumstances of a company. With this, the company must also publish its financial reports to make it easier for outside parties to assess its condition, whether in good health or financial distress.

Apart from providing signals to external parties, this theory also provides signals to internal parties of the bank itself. Where the bank can introspect on the condition of its own company, especially its financial condition, in what condition it is and can be used as a reference or evaluation for subsequent periods. The financial performance department, managers, or other internal parties can get input from customers or previous financial reports. If things need to be improved for the company's good in the future, they will be corrected, and if there is something good or superior in the previous period, it will be maintained. With that, whether the company name is good can be a customer's view of becoming a customer at that bank.

***Trade Off Theory***

*Trade-off theory* is the relationship between capital structure and company value, where companies weigh the benefits and sacrifices of using debt to manage their finances. This theory is also called *leverage exchange theory, which is when* companies exchange some problems caused by potential bankruptcy for the tax benefits of debt funding (Umdiana & Claudia, 2020).

In this theory, the company will use debt up to a certain limit, and it will get tax protection with this debt. If the benefits obtained are higher, then the company's finances are said to be safe, but if the sacrifices incurred are higher or the benefits obtained are lower, then it could threaten the company's financial difficulties *(financial distress).*

*Trade-off theory can be linked to the leverage ratio, where the amount of financing paid with debt will be calculated* by calculating leverage. Therefore, you can predict future financial management whether to maximize debt or minimize debt. If you use debt that can be said to be high but can increase profits or income, the company can be categorized as safe from financial difficulties (Umdiana & Claudia, 2020)

***Leverage***

*Leverage* is an effort to improve earnings management in companies*. Leverage* is how much a company uses debt for company capital, so the company does not use its assets or finances for company capital*. Leverage* in finance needs to be analyzed to determine which funds are handled in the long and short term. This ratio will show how much assets the company has that are financed with debt (Setiorini et al., 2022)

*Leverage* is a ratio that shows the financial condition of the company. According to Kasmir, *leverage* is one of the solvency ratios determining how much a company's activities are financed by debt. So, with this ratio, you can find out how much of the company's debt is used to run its activities smoothly. *The leverage* ratio is how a company can fulfill its obligations within a period that is not short term or short term; it can be said to be long term because usually, the maturity date for paying this debt is more than one year, not just a matter of months or short term (Ni Putu Ari Aryawati, SE. et al., 2022)

*The leverage* measurement used in this research is *the Debt to Asset Ratio* (DER). DER is a debt-to-equity ratio. It can be interpreted as how much equity and debt is used for the company's operational needs, which are financed with debt itself (Choiruddin, 2018)

**Liquidity**

Liquidity is the ability of a company to increase the assets owned by the company when the maturity date has to be met. Liquidity is very important for Islamic banks. Therefore, management and administration must be truly effective to avoid problems in the future. A low liquidity value in a bank can have an unfavorable effect on the name of a Sharia banking company. Therefore, good management is needed so that unwanted things attack the bank (Rara, 2013)

A good company has a good liquidity value, namely, a liquidity value sufficient to meet the company's own needs. If the company is unable to pay off its debt when it is due, it could negatively impact shareholders. This means that the company will receive bad values and views from shareholders, which will affect the company's reputation and good name.

***Financial Distress***

*Financial distress* is a situation where a company is in financial difficulty, meaning that the company is in a position threatened with bankruptcy. Financial distress is caused by problems in the company's financial system. This financial problem can start with a lack of thought about the company's financial management when making decisions without looking at the impacts and risks in the future. Apart from that, it could also be because without paying attention to the use of the money used for whatever purposes, the decisions taken can affect the company's financial condition. (Ayem et al., 2023)

Financial distress can occur in small, medium, and even large companies. When a company is threatened with a lack of money or financial distress, it needs to improve its finances. It is also necessary to think long-term when making decisions so that the company does not have difficulties in the future.

Several internal and external factors of the company can cause this financial distress. Internal factors include cash flow difficulties, large amounts of debt, and activity losses in several years. External factors such as increasing tax rates and the existence of high and increasing interest rate policies will also influence the company's interest expenses (Restiana & Segarawasesa, 2018)

In this study, *financial distress was measured* using the Z-Score, with the ratio in Sharia Banking companies being

$$Z = 6.56 * X1 + 3.26 * X2 + 6.72 * X3 + 1.05 * X4$$

Z = Financial Distress

$$X1 = \frac{Working\ capital}{Total\ Asset}$$

$$X2 = \frac{Retained\ earning}{Total\ Asset}$$

$$X3 = \frac{Earning\ before\ interest\ and\ taxes}{Total\ Asset}$$

$$X4 = \frac{Market\ value\ of\ equity}{book\ value\ of\ total\ dept}$$

With clarification of the company's position as follows:

- A Z value < 1.23 is categorized as an unsafe company's financial position.
- A value of 1.23 < Z < 2.90 is categorized as financial being in *the gray area*; the company's financial position is in the middle.
- A Z value > 2.90 is considered a safe company financial position.

From the ratio above, you can find out the number of threats to Sharia banking companies from financial distress. If the value is low, below 1.23, then the bank's position is unsafe, and if the value is above 2.90, the bank is said to be safe. So, it can be concluded that the higher the Z-Score value, the better the bank is said to manage its finances and avoid financial distress.

## 3. Research Method

In this research, the research method used is a quantitative approach using panel data. Panel data is data taken from several objects over a certain period. Secondary data will be collected from financial reports issued by *each Sharia Commercial Bank website* in Indonesia. And the research period is eight years, to be precise, 2015-2022. The population in this study was 13 sharia banks in Otoritas Jasa Keuangan (OJK). And by taking samples using the *purposive sampling method.* This technique is a way of taking samples with certain criteria and considerations. The criteria in this research include:

- Sharia Commercial Banks registered with the Otoritas Jasa Keuangan (OJK) for the 2015-2022 period
- Sharia Commercial Bank, which has published its financial reports for the 2015-2022 period
- Have complete data needed to support this research in the 2015-2022 period

From the above criteria, several Islamic banks were selected to be used as samples, including :

Table 1. List of Sharia Commercial Banks that Meet the Sample Criteria

| No | Sharia Commercial Bank |
|---|---|
| 1 | Bank Aceh Syariah |
| 2 | Bank Muamalat Indonesia |
| 3 | Bank Victoria Syariah |
| 4 | Bank Jabar Banten Syariah |
| 5 | Bank Mega Syariah |
| 6 | Bank Panin Dubai Syariah |
| 7 | Bank Bukopin Syariah |
| 8 | BCA Syariah |
| 9 | BPD NTB Syariah |

With the above calculations, this research chooses leverage and liquidity ratios to estimate the occurrence of *financial distress* in Islamic commercial banks in Indonesia

## 4. Results and Discussion

### *4.1. Results*

Hypothesis testing is a method based on data analysis. So, the multiple linear regression equation for this research is as follows :

$$Y = \alpha + b1.X1 + b2.X2 + e$$

Note :

Y = Financial distress

α = Constant

b = Standardized regression coefficient

X1 = leverage

X2 = Liquidity

e = error

Table 2. T-test Table

| Variables | Coefficient | Std. Error | t-Statistics | Prob. | Note |
|---|---|---|---|---|---|
| C | 98.30053 | 35.21699 | 2.791281 | 0.0068 | Significant |
| X1 | -12.58205 | 5.061831 | -2.485671 | 0.0154 | Significant |
| X2 | 0.004595 | 0.011776 | 0.390216 | 0.6976 | Not Significant |

From the table above, it can be concluded that the variable X1 *(leverage)* has a negative effect on Y *(financial distress),* seen as the coefficient value is -12.58205 and is significant because of the prob value <0,05. The variable X2 (liquidity) has a positive effect on Y *(financial distress), as seen from the coefficient value of 0.004595,* but is not significant because of the prob value >0,05.

Table 3. Goodness of fit Model

| R-squared | Adj. R-squared | F-statistic | Prob (F-statistic) |
|---|---|---|---|
| 0.291664 | 0.238003 | 5.435237 | 0.000301 |

From the prob (F-statistic) value of 0.000301 or <0.05, the combined independent variables significantly affect the dependent variable. And if you look at the R-squared value where the R-squared value shows a value of 0.291664, then 0.291664 x 100% = 29%, so the ability of the independent variable in the regression model can influence the dependent variable by 29%. 100% - 29% = 71%. The remainder is other variables (Basuki & Yuliadi, 2014).

### *4.2. Discussion*

**The Effect of *Leverage* on *Financial Distress***

The coefficient value of the variable X1 is -12.58205 and is negative, while the prob value of the variable is in a position of financial difficulty or shortage. This agrees with research by Aisyah and Nurhayati (2022), which shows that when a company uses too much debt to finance its obligations, the bank's financial condition can be unsafe. So, the solution chosen is to use debt, and when the company cannot pay it according to the maturity date promised, then the company is said to be in financial difficulty.

Apart from that, in Khoiriah & Rahmayanti's research (2023) *Leverage* influences the occurrence of financial distress. It is explained that it has an influence of 0.24%. So, whether a lot of debt is used to finance a company's finances can predict the company's financial difficulties and can be used as a consideration before choosing debt as financing. The results of several research tests prove that the higher the debt used to finance the company, the more its finances will be threatened with difficulties, and profits will be used more for the company's debt burden than for its needs.

### The Effect of Liquidity on Financial Distress

The coefficient value of the variable X2 is 0.004595 and is positive, while the prob value of the variable is his finances. However, if we look at the probability value of whether the company is liquid, it does not influence its financial condition. Whether the liquidity value is high or low does not make the financial position difficult or safe.

High liquidity means a company that is liquid and good at managing itself, as seen from its financial position and other assessments that do not influence the occurrence of financial difficulties. So, in analyzing a company's financial difficulties, it is not appropriate to use the company's liquidity level; perhaps other variables are more suitable for analyzing the company's financial condition (Fatmawati, 2017). Therefore, the second hypothesis is rejected because it is not proven that the company's liquidity affects its financial condition. Liquidity is not suitable for measuring financial difficulties or a company's financial position is safe, so high or low liquidity of a company's financial position does not mean it is safe but also does not mean it is in trouble.

## 5. Conclusion

After conducting several tests and obtaining the results of this research, it can be concluded that leverage significantly negatively affects *financial distress.* This means that the higher the financing of a Sharia banking company, which is financed by debt, the Z-Score value will decrease, or it can be said that the company is in a state of financial difficulty or shortage. Liquidity has a positive but not significant effect on *financial distress.* This means that the higher the liquidity value of a Sharia banking company, the Z-Score value will also increase, or the company will be said to be safe from *financial distress.*

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