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THE EFFECT OF CAPITAL ADEQUACY RATIO, NON PERFORMING LOAN, LOAN TO DEPOSIT RATIO AND SIZE ON FINANCIAL DISTRESS WITH PROFITABILITY AS A MODERATING VARIABLE IN PRIVATE BANKING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE IN THE PERIOD 2018-2022

Lala Merlita[1], Darmawati Muchtar [2], Ahmad Fauzul Hakim Hasibuan[3], Ghazali Syamni[4], Jummaini[5], Husaini[6]
[1,2,3,4,5,6]Universitas Malikussaleh

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Abstract

This study aims to determine how Profitability (ROA) strengthens/weakens the influence of CAR, NPL, LDR, SIZE on financial distress in Private Banking Companies listed on the IDX. This type of research is quantitative descriptive. The population in this study are all private banking companies listed on the Indonesia Stock Exchange. Based on these provisions, the population of this study is 35 Private Banks. The companies selected as samples are 33 private companies. With the results CAR has a significant effect on financial distress in Private Banking Companies listed on the IDX. NPL does not have a significant effect on financial distress in Private Banking Companies listed on the IDX. LDR has a significant effect on financial distress in Private Banking Companies listed on the IDX. SIZE has a significant effect on financial distress in Private Banking Companies listed on the IDX. Profitability (ROA) has a significant effect on financial distress in Private Banking Companies listed on the IDX. Profitability (ROA) cannot moderate the effect of CAR on financial distress in Private Banking Companies listed on the IDX in this study, including in the Moderation Predictor (Predictor Moderation). Profitability (ROA) can moderate the effect of NPL on financial distress in Private Banking Companies listed on the IDX in this study, including in Quasi Moderation. Profitability (ROA) can moderate the effect of LDR on financial distress in Private Banking Companies listed on the IDX in this study, including in Quasi Moderation, Profitability (ROA) can moderate the effect of SIZE on financial distress in Private Banking Companies listed on the IDX in this study, including in Quasi Moderation.

Keywords: ***Capital Adequacy Ratio, Non Performing Loan, Loan to Deposit Ratio, SIZE, Return on Assets and Financial Distress***

INTRODUCTION

The banking sector is still the mainstay of people's economic activities, especially as a source of financing and saving funds (Hanoatubun, 2020). In the midst of increasingly tight banking competition, Bank Central Asia (BCA) is one of the first and largest private banks in Indonesia that was able to recover after the monetary crisis of 1997-1998 (Setiawan, 2022). At that time, the rupiah exchange rate against the dollar experienced a very sharp increase from around IDR 3,200/US dollar in 1997 to around IDR 14,900/dollar in June 1998 and a high inflation rate of 54% in August 1998 (Harahap, 2013).

There are several models in viewing financial distress that have been discussed by several previous studies. One of the popular models is the Almant Z-Score proposed by Altman (1968). The advantage of this model is the combination of various financial ratios such as liquidity ratios, profitability, solvency and activity so that it is claimed to be able to produce a prediction accuracy of 95% (Almamy et al., 2016). This shows that the use of the Almant Z-Score as a bankruptcy prediction analysis model is an aspect that can be applied in companies. Several studies have documented that several factors that influence financial distress are Capital Adequacy Ratio (CAR), Non Performing Loan (NPL), Loan to Deposit Ratio (LDR), company size and profitability. (Kareem et al., 2022; Octavella & Widati, 2023), (Haq & Harto, 2019; Ismawati & Istria, 2015), (Rizqi & Sunarsih, 2022). However,

there are still findings that prove that CAR, NPL, LDR, company size and profitability do not have a significant effect on financial distress (Aminah et al., 2019), (Kareem et al., 2022; Rizqi & Sunarsih, 2022), (Cinantya & Merkusiwati, 2015). This shows that there is still inconsistency and debate among researchers regarding the influence of CAR, NPL, LDR, company size and profitability on financial distress, thus encouraging the author to review it again.

Capital Adequacy Ratio (CAR) is an important indicator that affects financial distress. CAR can be interpreted as a ratio that is able to reflect the level of bank capital in supervising and controlling the risks that arise in bank operations (Yusuf, 2017). Another important factor that affects bank financial distress is NPL which is a ratio that can reflect the level of loan risk in banks (Damanhur et al., 2018). The ideal NPL value according to Bank Indonesia is below 5%. The high NPL value indicates that the potential for loan failure provided by the bank is high (Silaban, 2017).

The next factor that influences financial distress is LDR. LDR is a ratio that reflects the level of banking liquidity (Sumarlin, 2016). Furthermore, bank size is also an important factor that influences financial distress. Bank size can be seen from the amount of bank assets in a certain period (Permatasari & Filianti, 2020; Yusuf, 2017). Another important factor that influences financial distress is profitability. Profitability is a proxy for accounting performance which is reflected by the comparison of assets and net income which is called the Return on Asset (ROA) ratio (Muchtar et al., 2018; Zeitun & Tian, 2014). High profitability indicates that the bank has high profits (Adwiyah, 2015). This will send a positive signal to the market, so that the company's value increases (Prayitno et al., 2021). In addition, high profitability increases bank returns, so that the bank's performance improves (Candra, 2017). This will reduce financial distress. Previous research has also documented that profitability significantly affects financial distress (Kareem et al., 2022; Saputra & Salim, 2020).

LITERATURE REVIEW

Capital Adequacy Ratio is a ratio that shows how much of the total assets that contain risks (credit, investments, securities, bills on other banks) are financed from own capital in addition to obtaining funds from sources outside the bank (Maisarah et al., 2018). CAR is a bank performance ratio to measure the level of capital adequacy in the bank to support company assets that have the potential to generate financial distress risks (Putri & Sari, 2021).

Non Performing Loan (NPL) is the amount of problematic credit compared to the total bank credit. The credit in question is credit given to third parties, namely customers or agencies, but does not include credit to other banks (Komarudin, 2019). NPL is a key indicator for assessing a bank's financial performance. According to (Siamat, 2001) NPL is the risk due to failure and inability of customers to return the amount of credit given by the bank along with interest within the given time period.

Loan to deposit ratio (LDR) is a comparison between the total amount of financing provided by the bank to the funds received by the bank (Aldy Syafrizal et al., 2023). According to (Fanesha et al., 2021) Non Performing Loan (NPL) is one of the measurements of bank business ratios that shows the magnitude of the ratio of non-performing loans in a bank. The higher this ratio, the more it will indicate the low liquidity capacity of the bank concerned, the greater the amount of funds needed to finance credit and Bank Indonesia's provisions regarding the maximum LDR are 110% (H. Yati & Afriyeni, 2019). The amount of credit disbursed will determine the bank's profit because if the bank is unable to distribute credit while the funds collected are large, it will cause the bank to lose (Agustiningrum, 2016).

Profitability is an important aspect for banking, especially since banking also plays an important role in the financial sector in a country (Muchtar et al., 2021). The higher the profitability value, the more optimal a bank is in running its assets and is an indicator of the bank's success in competing in the financial sector (Surjaatmaja, 2018). This profitability is often used to see the condition of a company in good condition or the company is in trouble or financial distress (Sutra & Mais, 2019).

METHOD

Population and Sample

The population in this study is all private banking companies listed on the Indonesia Stock Exchange. Based on these provisions, the population of this study is 35 Private Banks. The names of the companies selected as samples are 33 private banking companies.

Types and Research Data

The data required in this study is secondary data, namely data from the publication of banking financial reports for 2018-2023 obtained from the websites of each private bank in the form of Profitability data, capital adequacy ratio (CAR), non-performing loans (NPL), loan to deposit ratio (LDR), SIZE and Financial Distress.

In this study, researchers used cross-section and time series data, namely a set of data to examine a particular phenomenon that is carried out repeatedly over a certain period of time. So it can be categorized as a Balance Panel. The data source in this study is the financial statements of private banking companies listed on the IDX in 2018 to 2023.

RESULTS AND DISCUSSION

Table 1. Regression results between CAR, NPL, LDR, SIZE and interaction variables (CAR*ROA, NPL*ROA, LDR*ROA, SIZE*ROA) partially on FD using the Random Effect Model.

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	-8567955.	18041842	-0.474894	0.6355
CAR	-3916.324	33997.69	3.115194	0.0000
NPL	86471.03	271499.0	0.318495	0.7505
LDR	20306.21	38029.94	2.533953	0.0004
SIZE	1334095.	1165935.	3.144227	0.0001
ROA	119653.2	299075.4	-0.400077	0.6896
CAR *ROA	8573.192	33826.57	3.091738	0.0002
NPL *ROA	94838.54	270508.2	2.327534	0.0004
LDR *ROA	42924.45	37883.01	-0.551922	0.5818
SIZE *ROA	1353900.	1168748	3.158419	0.0000

Source: Research Results (2024)

Based on the results of Eviews processing, the regression produced with FD (Y) as the dependent variable is as follows:

FD = -8567955 – 3916.324 CAR + 86471.03 NPL + 20306.21 LDR + 1334095. SIZE + 119653.2 ROA + 8573.192 CAR*ROA + 94838.54 NPL*ROA + 42924.45 LDR*ROA + 1353900. SIZE*ROA + *eit*

The summary of the results of the regression analysis between CAR, NPL, LDR, SIZE and interaction variables (CAR*ROA, NPL*ROA, LDR*ROA, SIZE*ROA) partially on FD using the Random Effect Model above can be described as follows:

1. The constant value (β 0) of -8567955 indicates that FD in Private Banking listed on the IDX has a value of -8567955. if the independent variables CAR, NPL, LDR, SIZE, the moderation variable ROA and the interaction variables CAR*ROA, NPL*ROA, LDR*ROA, SIZE*ROA are considered unchanged (zero value).
2. The regression coefficient value of the CAR variable is negative (not in the same direction) of -3916.324. This means that if CAR increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 39.16%, assuming other variables are constant.
3. The regression coefficient value of the NPL variable is positive (unidirectional) at 86471.03. This means that if the NPL increases by 1 percent, it will increase the FD in Private Banking listed on the IDX by 86.47%, assuming other variables are constant.
4. The regression coefficient value of the LDR variable is positive (unidirectional) at 20306.21. This means that if NPL increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 20.30%, assuming other variables are constant.
5. The regression coefficient value of the SIZE variable is positive (unidirectional) at 1334095. This means that if SIZE increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 13.34%, assuming other variables are constant.
6. The regression coefficient value of the interaction variable ROA with CAR is positive (in the same direction) of 8573.192. This means that if the interaction between ROA and CAR increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 85.73%, assuming other variables are constant.
7. The regression coefficient value of the interaction variable ROA with NPL is positive (in the same direction) of 94838.54. This means that if the interaction between ROA and NPL increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 94.83%, assuming other variables are constant.

8. The regression coefficient value of the interaction variable ROA with LDR is positive (in the same direction) of 42924.45. This means that if the interaction between ROA and LDR increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 42.92%, assuming other variables are constant.
9. The regression coefficient value of the interaction variable ROA with SIZE is positive (in the same direction) of 1353900. This means that if the interaction between ROA and ZISE increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 94.83%, assuming other variables are constant.

DISCUSSION

The Influence of CAR on Financial Distress in Private Banking Companies Listed on the IDX

The regression results between the independent variable CAR and the dependent variable FD show a probability value of 0.0000 or below the significance level of 0.05. These results mean that CAR has a significant effect on FD in Private Banking listed on the Indonesia Stock Exchange (IDX). The regression coefficient value of the CAR variable is negative (not in the same direction) of -3916.324. This means that if CAR increases by 1 percent, it will reduce FD in Private Banking listed on the IDX by 39.16%, assuming other variables are constant.

The acceptance of the first hypothesis test in this study shows that the size of the CAR (capital adequacy ratio) owned by private banks has an effect on the size of financial distress. This is because regulations related to CAR (capital adequacy ratio) have an impact on banks having to increase their capital adequacy. When a bank is unable to meet these regulations, the bank is considered to not have sufficient capital for its business expansion so that the bank is vulnerable to facing financial distress problems.

CAR (capital adequacy ratio) has an effect on financial distress because according to real data, there is a unidirectional relationship between CAR (capital adequacy ratio) data and financial distress conditions, namely when the CAR (capital adequacy ratio) of private banks increases. Balanced by the occurrence of financial distress. Likewise, vice versa when the CAR (capital adequacy ratio) of private banks decreases, it is balanced by the number of private banks that are protected from financial distress conditions.

The results of this study are relevant to previous research, namely research conducted by Khadapi (2016) which showed that CAR (Capital Adequacy Ratio) had no effect on Financial Distress.

The Influence of NPL on Financial Distress in Private Banking Companies Listed on the IDX

The regression results between the independent variable NPL and the dependent variable FD show a probability value of 0.7505 or above the significance level of 0.05. These results mean that CAR does not have a significant effect on FD in Private Banking listed on the Indonesia Stock Exchange (IDX). The regression coefficient value of the NPL variable is positive (in the same direction) of 86471.03. This means that if NPL increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 86.47%, assuming other variables are constant.

The rejection of the second hypothesis in this study shows that the size of non-performing financing (NPF) owned by private banks does not affect the condition of financial distress. Because banks have anticipated problematic financing by forming provisions for productive asset write-offs as a solution if the financing distributed by the bank is problematic. So that banks can avoid financial distress conditions.

The results of this study are not in line with previous research, namely research conducted by Afriyeni (2015) which showed that NPF (Non Performing Financing) has an effect on Financial Distress.

The Influence of LDR on Financial Distress in Private Banking Companies Listed on the IDX

The regression results between the independent variable LDR and the dependent variable FD show a probability value of 0.0004 or below the significance level of 0.05. These results mean that CAR has a significant effect on FD in Private Banking listed on the Indonesia Stock Exchange (IDX). The regression coefficient value of the LDR variable is positive (in the same direction) of 20306.21. This means that if NPL increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 20.30%, assuming other variables are constant.

The regression coefficient is positive indicating that the greater the Loan to Deposit Ratio (LDR), the Prediction value of potential financial distress in private banks in Indonesia will increase, where the increase in the Altman Z Score value makes the company in a safe zone (no potential for bankruptcy). Through these results, it is better for private banks to optimize credit without ignoring the amount of third party funds, because this ratio must be at an ideal number because if it is too large, it will have an impact on the existence of banking liquidity problems, but if it is too small, banking tends to be less productive.

This can cause an LDR value that is too high to disrupt bank liquidity (Zahronyana & Mahardika, 2018). All funds lent to the public (loans) are ideally categorized in collectibility 1 (smooth), but the ability of the community's condition to return loan funds from the bank according to the agreement is not always the same. The complication of the community's ability causes the bank to be open to the risk of non-smooth credit (Theodorus & Artini, 2018). The results of this study are in accordance with the research conducted by (Ismawati & Istria, 2015) and (Sriyanto & Agustina, 2020) which states that the Loan To Deposit Ratio (LDR) has an effect on financial distress.

The effect of SIZE on financial distress in private banking companies listed on the IDX

The regression results between the independent variable SIZE and the dependent variable FD show a probability value of 0.0000 or below the significance level of 0.05. These results mean that SIZE has a significant effect on FD in Private Banking listed on the Indonesia Stock Exchange (IDX). The regression coefficient value of the SIZE variable is positive (in the same direction) of 1334095. This means that if SIZE increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 13.34%, assuming other variables are constant.

The size variable has a significant positive effect on financial distress. The results of this study are in line with research conducted by Astuti (2014) with the results of the study of the Size ratio having a positive effect on financial distress. Size is an outline of a state of resources owned by a private banking company. Large companies will usually have a large book value and large transaction development so that profits will also be greater.

The effect of profitability (ROA) on financial distress in private banking companies listed on the IDX

The regression results between the independent variable ROA and the dependent variable FD show a probability value of 0.6896 or above the significance level of 0.05. These results mean that ROA has no significant effect on FD in Private Banking listed on the Indonesia Stock Exchange (IDX). The regression coefficient value of the ROA variable is positive (in the same direction) of 119653.2. This means that if ROA increases by 1 percent, it will increase FD in Private Banking listed on the IDX by 11.96%, assuming other variables are constant.

The regression coefficient is positive indicating that the greater the Return On Asset (ROA) value, the financial distress value of Private Banks in Indonesia will increase, where the increase in Altman's Z Score value makes the company in a safe zone (no potential for bankruptcy). Through these results, increasing profits needs to be done by making innovation efforts on banking products that have the ability to generate high profits but with low capital or investment levels. Then increasing profits can also be done by saving various banking operational costs so that the targets and profit achievements expected by private banks can be achieved easily.

The results of this study are in line with the research of Nora (2016), Ayu et al (2017), Damayanti et al (2017), Dewi and Wahyullana (2019) that the profitability ratio (return on assets) affects financial distress conditions. This shows that the higher the value of the company's profitability ratio (return on assets), the smaller the possibility of financial distress. Likewise, the lower the value of the company's profitability ratio (return on assets), the greater the possibility of financial distress.

The influence of profitability (ROA) moderates the influence of CAR on financial distress in Private Banking Companies listed on the IDX

The regression results between the CAR moderation variable and its relationship moderating ROA against the dependent variable FD show a probability value of 0.0002 or below the significance level of 0.05. These results mean that CAR has a significant effect in moderating ROA against FD in Private Banking listed on the Indonesia Stock Exchange (IDX). The results of this study indicate that if CAR increases, it means that the company's capital also increases, with the addition of this capital there is a possibility of an increase in bank income. This means that profit also increases, so that CAR has a positive relationship with ROA. The results of this study are in line with previous research conducted by Mario et al. (2014).s Based on the results of the MRA test, it is known that H6 is accepted. Thus, it can be concluded that CAR can moderate ROA against FD.

The influence of profitability (ROA) moderates the influence of NPL on financial distress in Private Banking Companies listed on the IDX

The regression results between the NPL moderating variable and its relationship moderating ROA against the dependent variable FD show a probability value of 0.0004 or below the significance level of 0.05. These results

mean that NPL has a significant effect in moderating ROA against FD in Private Banking listed on the Indonesia Stock Exchange (IDX). The high level of NPL makes banking companies have to bear losses in their operational activities so that it affects the decline in return on assets. The results of this study are in line with previous studies conducted by Choul and Buchdadi (2016), Puspitasari et al. (2015), and Ceria (2014) Based on the results of the MRA test, it is known that H7 is accepted. Thus, it can be concluded that NPL can moderate ROA against FD.

The influence of profitability (ROA) moderates the influence of LDR on financial distress in Private Banking Companies listed on the IDX

The regression results between the moderating variable LDR and its relationship moderating ROA against the dependent variable FD show a probability value of 0.5818 or above the significance level of 0.05. These results mean that LDR has no significant effect in moderating ROA against FD in Private Banking listed on the Indonesia Stock Exchange (IDX).

Based on the results of the MRA test, it is known that H8 is rejected. Thus, it can be concluded that LDR cannot moderate ROA against FD. LDR is related to liquidity management which is one of the complex problems in bank operational activities. The results of the study stated that LDR has a significant influence on profitability. These results indicate the bank's ability to distribute third party funds collected by the bank concerned.

The influence of profitability (ROA) moderates the influence of SIZE on financial distress in Private Banking Companies listed on the IDX

The regression results between the moderating variable SIZE and its relationship moderating ROA against the dependent variable FD show a probability value of 0.0000 or below the significance level of 0.05. These results mean that SIZE has a significant effect in moderating ROA against FD in Private Banking listed on the Indonesia Stock Exchange (IDX). Based on the results of the MRA test, it is known that H7 is accepted. Thus, it can be concluded that SIZE can moderate ROA against FD.

CONCLUSION

This study was conducted to see the Influence of Capital Adequacy Ratio, Non Performing Loan, Loan To Deposit Ratio and SIZE on Financial Distress with Profitability as a Moderating Variable in Private Banking Companies Listed on the Indonesia Stock Exchange for the 2018-2023 Period. Based on the discussion in Chapter 5, it can be concluded:

CAR does not significantly affect financial distress in Private Banking Companies listed on the IDX. NPL significantly affects financial distress in Private Banking Companies listed on the IDX. LDR significantly affects financial distress in Private Banking Companies listed on the IDX. SIZE significantly affects financial distress in Private Banking Companies listed on the IDX. Profitability (ROA) does not significantly affect financial distress in Private Banking Companies listed on the IDX

Profitability (ROA) can moderate the effect of CAR on financial distress in Private Banking Companies listed on the IDX. Profitability (ROA) can moderate the effect of NPL on financial distress in Private Banking Companies listed on the IDX. Profitability (ROA) cannot moderate the effect of LDR on financial distress in Private Banking Companies listed on the IDX, Profitability (ROA) can moderate the effect of SIZE on financial distress in Private Banking Companies listed on the IDX.

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