Risk profile assessment of core capital adequacy: capital adequacy tier-book strategy

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Article Info

ABSTRACT

The purpose of this study is to analyze the effect of risk profile variables both on the fulfillment of core capital adequacy and to find out which risk variables have a dominant influence on core capital adequacy in bank books 1 and 2. This research is included in quantitative analysis. This study uses purposive sampling, and data collection is carried out using the documentation method by looking at the annual financial reports on the OJK (Financial Services Authority) website, BI (Bank Indonesia) website, and the Bank's website object of research for the 2017-2019 period. The results of this study using the level of capital ratios by banks, namely the ratio of CAR, ROA, OEOI, NIM, LDR, and RAR, show good results. Because the standard deviation reflects very high variations, the distribution of data shows expected results and does not cause bias. Assessment of the Bank's Soundness Level using a risk approach (Risk-based Bank Rating) is executed based on a thorough analysis of the Bank's performance, risk profile, problems, and development prospects of the Bank since the purpose of maintaining the soundness of banks through consideration of the aspect of capital adequacy is the most significant part in order to gain public trust.

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Introduction

Banking in Indonesia plays a vital role in moving the economic sector; therefore, sound banking is needed. In the banking world, capital is one of the essential benchmarks in assessing the soundness of a bank (Yoshino & Taghizadeh-Hesary, 2019; Rosdiana, 2019). The size of the wealth owned by the bank serves as an effort to minimize the risk of losses experienced by the bank; therefore, the demand to have sufficient capital is the main objective. On the other hand, the greater the core capital owned by a bank, the better the potential for the bank, for example, access to services provided by banks to the public through the reach of financial services and the more comprehensive office network that can be opened Kim & Sohn, 2017; Ozili, 2017). In Indonesia itself, the obligation of banks in providing minimum capital is regulated in Bank Indonesia Regulation 15/12/PBI/2013. which in its core clause states that banks with tier category 1 have core capital of IDR 1 trillion while banks with tier-book category 2 have capital core between Rp.1 trillion to less than Rp.5 trillion. Banks in book categories 1 and 2 are classified as small banks and tend to have a small market share because their business scope is not as comprehensive as bank categories as tier 3 and 4 (Nicola et al., 2017). Financial services authorities motivate banks to increase their core capital through bank arrangements based on business activities. Gambacorta & Shin (2018) show that these positive impacts include lower cost of funds, access to

more comprehensive sources of funds, more disbursement of funds, and a more effective transmission mechanism.

Meanwhile, Carlson et al (2013) found a positive influence between the capital ratio on credit growth. Banks with high capital ratios tend to have higher credit growth. Likewise, the relationship between capital and systemic risk. High money reduces the impact of systemic risk (Laeven et al., 2014; Claessens et al., 2014). To assess the soundness of commercial banks using the Risk Profile, Good Corporate Governance, Earning and Capital (RGEC) method. One of the components of RGEC is the Capital Adequacy Ratio (CAR). Tangngisalu et al (2020) states that the greater the CAR, the greater the profit earned by the bank; or the greater the CAR, the smaller the risk of a bank, the greater the profit earned by the bank. This will undoubtedly be able to attract investors to invest their capital. Thus, capital is a reserve that must be maintained to anticipate the risk of bank losses. Based on the background description above, research on the variables that affect the increase in capital in book one and book two tires needs to be done so that banks belonging to the book 1 group can increase their core capital to increase to Tier group 2 banks. Those who enter Tier group 2 can become book bank group 3.

As with businesses, banks and financial institutions must be willing to take risks. However, for banks, risk taking can lead to the possibility of bank failure and ultimately bring a comprehensive impact on the global economy. All banks have the potential to face any kind of risks, which include market risk (Varotto, 2011), credit risk (Imbierowicz & Rauch, 2014), and operational risk (Barakat & Hussainey, 2013). The risks are corresponding with the utterance as well as the implementation of bank strategies, whether strategic or business risks, can be concluded as the greatest risks that banks may face, given the enormous uncertainty in the global economy. (Vo, 2020; Moudud-Ul-Huq et al., 2020; Martynova et al., 2020). Strategic risk is also related to environmental disturbances in which the bank operates. Strategic risk is pervasive in today's market condition, as it is accompaniwd with the entry of online banks and Fintech and deregulation that threatens banking inclusiveness, of course. However, although strategic risk is considered important in the risk framework, there is still not much of a literature of it. At least, as far as we are concerned, there is no quantifiable definition of strategic risk in the literature. The strategic risks that are faced by the bank are increasingly prominent, mainly caused by COVID 19. OJK believes that the negative impact of the spread of COVID-19 on debtors, automatically increase bank credit risk, and impact bank performance and financial system stability. Ogboi and Unuafe (2013) explore the impact of credit risk management and capital adequacy and conclude that the effects of these two measures on financial performance are significant. Therefore, identifying strategic risks as a possible significant risks and compelling banks to have capital buffers or sufficient economic capital is crucial in order to mitigate strategic risk. As a starting point to determine the strategic risk, financial capital assessment is needed to mitigate it (Goodell, 2020; Li et al., 2021).

Driven by the urgency and currency of strategic risk faced by the banks, its extent, as well as its management's intricacy, this paper will narrow down the discussion into the quantification of strategic risk. Due to the lack of clarity and solid definition of it, we began to analyze the academic and regulatory literature for strategic risk. Then, we also analyze banks' annual report for their portrayal of strategic risk. After this analysis, we developed through statistical quantification the measurement of core capital adequacy of banks in Indonesia based on the classifications of Tier 1, 2, and 3. In addition, we then develop a framework to evaluate the impact of risk appetite selection and formulate strategies for the growth of the capital needs of the economy and banking. The framework presented in this paper is based on the parameters estimated from the data obtained from the bank so that it can be generalized. This later can be used by the bank internally and regulatory authorities using provided data or available data in public, as we how we did it in the case study, and bu the academics (Kadim et al., 2018).

As we elaborate it before, strategic risk can be divided as follows; strategic position risk and strategic execution risk. The framework then permits banks to determine overall strategic risk. The impact of a change in strategy on the capital requirements of the economy can also be evaluated through this framework. This is correspondent with the measurement of the strategic position risk effect on banking capital requirements. Therefore, using this concept in our framework helps us to acquire the framework of banks and financial institutions. The specific purpose of this study is to determine the significance of the effect of risk profile ratios in classifying/grouping the performance of bank capital in increasing core capital, which risk ratios have a dominant influence on the classification of tier-group 1, 2, and 3 bank groups to be used as a reference in fulfilling bank core capital adequacy. This study is proof-of-concept that the risk factors in the risk profile affect the rise and fall of core capital. This is because companies, including banks, need to periodically analyze their performance to determine their business conditions and determine government policies through financial services authority regulations (POJK) in the future. So that the target to be achieved in this research is the

development of a model of factors in the risk profile of tier 1 and 2 bank capital that will be used by banks of tier 1 and tier 2 bank groups in increasing core capital (tier 1). Core capital or Tier 1 capital is bank capital, which comes from reserves formed from paid-in capital, contribution capital, after-tax profit, and after-tax profit. This research is important. " Banks must know the variables that affect a bank's Tier 1 capital ratio, including the main financial indicators that distinguish the level of bank capital and use these variables to estimate bank capital in the comparative projection of CAR in the banking industry. The results of forecasting the level of capital will help banks determine the position and competitiveness of bank capital in the banking industry. " The difference between our study and several previous studies is the use of independent variables and analytical techniques. The indicators are grouped according to the bank's risk profile determined from the published financial statements. The variables used in the research on the application of risk-based bank ratings include the risk profile and capital variables. The risk profile of this study is the capital adequacy ratio (CAR), return on assets (ROA), operating costs / operating profit (BOPO), net interest spread ratio (NIM), loan-to-deposit ratio (LDR), and Liquid Assets Ratio (LAR). In this study, a test was conducted to determine the dominant influence of financial risk variables on the classification of bank capital into Books 1, 2, and 3 groups in increasing Tier 1 capital, with the order of the most significant effect being real, the classification model of each BUKU Group is well known. 1, BOOK 2, BOOK 3.

Method

This research is included in quantitative research by measuring quantitative data and objective statistics through scientific calculations using statistical data analysis and interpretation. The population taken in this study is Banks with tier 1 and 2 categories registered with the Financial Services Authority and having Financial Statements for the 2017-2019 period. This study using purposive sampling. Purposive sampling is a research sample determination technique with certain considerations so that the data obtained more precise. Data collection is carried out using the documentation method by viewing the Bank's Annual Financial Statements on the OJK (Financial Services Authority) website, BI (Bank Indonesia) website, and on the banks that are the object of research. Additionally, this study will offer entire financial report data from 2017 to 2019, population sampling using criteria-based target sampling and complete financial metric reports that demonstrate operating performance in business operations. 180 banks' worth of financial ratio data is gathered through a targeted sample survey. the outcomes of the thorough data type ratio data. Because it is taken from research journals, the literature used is research literature.

The analysis technique in this study was carried out in four stages: The first stage in this study was to collect data on banks with the categories of tier-book 1, book two, and book 3 using purposive sampling to determine the research sample. Then collect data on financial ratios from the annual financial statements. The second stage is that the researcher only uses a description of the average, standard deviation, minimum value, and maximum value of the financial risk variable because it is adjusted to the characteristics of the financial risk variable in the form of data in the form of ratios we adopted Tangngisalu et al (2020) research which ROA, CAR and ROI to measure the bank financial performance. The third stage will steps is separating the independent and dependent variables used in this study. Calculating financial ratios, Capital Adequacy Ratio (CAR), Return on Assets (ROA), Operating Expenses/Operating Income (OEOI), Net Interest Margin Ratio (NIM), Loan to Deposit Ratio (LDR), and Liquid Assets Ratio (LAR) of The financial statements of each bank that are sampled are banks in the Book 1, Book 2 and Book 3 group categories. Define the dependent variable in the form of a non-metric scale or category with the provisions of classification/grouping, namely: a) Bank Core Capital between 1M - <1T in Category Book Group 1 with coding "1". b) Core Capital of Banks between 1T - 5T is categorized as Book Group 2 with coding "2". c) The Bank's Core Capital between 5T - 10T is in the category of Book Group 3 with coding "3".

Discriminant analysis is a multivariate analysis technique that aims to classify/group a unit of analysis into two or more groups—referring to the results of the discriminant score of each independent variable, before making the discriminant function model. Therefore, it is crucial to test the assumptions of the independent variables that must be met, among others: Independent variables must meet the assumptions of multivariate normal distribution, data that are generally not distributed if processed will cause problems in the classification accuracy of the discriminant function. The test statistic used in this study is the QQ Graph. Tests on the assumption of the variance-covariance matrix between groups of all independent variables must be uniform. The test statistic used in this study was Box's M/F. There is no strong correlation between independent variables. If there is data on independent variables that have a strong correlation, it is indicated that there is multicollinearity. The condition of high multicollinearity causes a high standard of parameter error. To determine the emergence of multicollinearity, it can be seen through the correlation between the independent variables. The test statistic used in this study is the VIF and TOL tests. If VIF > 10 and TOL < 0.1, it can be

concluded then, that there is multicollinearity between financial risk variables. Tests on the assumption of differences in the mean between groups that must be different. The test statistic used in this study was Wilks' Lambda/Chi-Square (Field, 2009).

Perform tests on the level of accuracy of the modeled multiple discriminant function. In this study, data processing is used in order to find the dominant factors that have certain effect on the grouping of the Bank's core capital performance into tier-Books 1, 2, and 3 groups based on data from more than one independent variable. The resulting discriminant function equation can be used to predict accurately in classifying banks into the categories of Books 1, 2, and 3 groups based on the scores of the independent variables. Test the significance of the discriminant function that has been formed using Wilk's Lambda/F and explain about Canonical Correlation, Standardize Canonical Discriminant Function Coefficients, Correlation Matrix Structure, and others. Develop a discriminant function model for each group of tier-book-group 1, Book 2, and Book 3 of the significant independent variables based on the results of the Coefficient Canonical Discriminant or Fisher's Linear Discriminant Functions as the Coefficient of Classification Functions, and explain the Functions at Group Centroid. Wherein, the analysis model discriminant is an equation that shows a linear combination of a variety of independent variables, namely: $Di = \beta_{0i} + \beta_{1i} X1 + \beta_{2i} X2 + \beta_{3i} X3 + \beta_{4i} X4 + \beta_{5i} X5 - \beta_{6i} X6$, where Di = Score discriminant function discriminant, ki = Discriminant coefficient or weight of each independent variable. Xk = Predictor or independent variable. Calculating the size of the accuracy of the discriminant function equations in categorizing/classifying for bank capital in improving the performance of core capital into groups of tier-book 1, tier 2, or tier 3. Processing of the data analyst of this research is assisted by using SPSS software version 21. Next is a risk identical banking normative and then allocate strategic steps to deal with various risks and levels of risk faced by banks.

Results and Discussions

Statistical Results

The variables used include Capital Adequacy Ratio (CAR), Return On Asset (ROA), Operating Expenses/Operating Income (OEOI), Net Interest Margin Ratio (NIM), Loan to Deposit Ratio (LDR), and Liquid Assets Ratio (LAR). The following are descriptive statistics of each financial risk variable used in this study

Table.1 Descriptive Statistics of Independent Variables

Variabel	N	Minimum	Maximum	Mean	Std. Deviation
CAR	180	17.74	30.75	23.4233	2.24518
ROA	180	.71	3.21	1.6982	.30367
OEOI	180	81.00	93.67	86.3917	2.30129
NIM	180	3.31	6.43	4.9376	.65722
LDR	180	68.66	104.69	88.7726	8.69463
LAR	180	14.30	27.50	19.3262	2.89258

Table 1 shows the value of N or the amount of data studied amounted to 180 samples. The company's CAR has a mean value of 23.42 and a standard deviation of 2.245, which means that the maximum increase in the average CAR variable is +2.245, while the minimum decrease is -2.245. Therefore, it can be seen then, that the mean value is greater than the standard deviation, thus indicating that the results are promising. The ROA owned by the company has a mean value of 1.698 and a standard deviation of 0.303, which means that the maximum increase in the average ROA variable is +0.303, while the minimum decrease is -0.303. It can be concluded then that the mean value is greater than the standard deviation, thus indicating that the results are promising. The company's OEOI has a mean value of 86,391 and a standard deviation of 2,301, which means that the maximum increase in the average OEOI variable is +2,301, while the minimum decrease is -2,301. Therefore we can tell that the mean value is greater than the standard deviation, thus indicating that the results are promising. The company's NIM has a mean value of 4.938 and a standard deviation of 0.657, which means that the maximum increase in the average NIM variable is +0.657, while the minimum decrease is -0.657. It indicates that the mean value is greater than the standard deviation, thus indicating that the results are promising. The LDR owned by the company has a mean value of 88,772 and a standard deviation of 8,694, which means that the maximum increase in the LDR variable is +8,694, while the minimum decrease is -8,694. The mean value then can be seen as greater than the standard deviation, thus indicating that the results are promising. The company's RAR has a mean value of 19,326 and a standard deviation of 2,892, which means that the maximum increase in the average RAR variable is +2,892, while the minimum decrease is -2,892. That shows that the mean value is greater than the standard deviation, thus indicating that the results

are promising. The study results demonstrated the assumption of normality in the independent variables, e.g., CAR, ROA, OEOI, NIM, LDR, and LAR. This showed that all independent variables tended to have a distribution pattern. Whose data followed a linear line in table 2. It can be assumed that normality in the independent variables, CAR, ROA, OEOI, NIM, LDR, and LAR, have met so that multiple discriminant analyses can be performed.

Table. 2 Test Box's M/F

Box's M		**14.385**
F	Approx.	1.481
	df1	42
	df2	93009.167
	Sig.	.325

In Table 2 above, Box's M/F test results show that the F value is 1.481, and the significance is 0.325. This probability is below =0.05, so it can be concluded that the variance-covariance matrix between groups is uniform. Thus, the assumption of all groups having the same variance-covariance matrix is fulfilled, which indicates the covariances for each group are the same so that that discriminant analysis can be carried out.

Table. 3 Multicollinearity Test

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	CAR	.621	1.610
	ROA	.296	3.377
	OEOI	.314	3.182
	NIM	.333	3.006
	LDR	.123	8.141
	RAR	.198	5.051

a. Dependent Variable: Modal Inti

Table 3 shows that the VIF value > 10 and TOL < 0.1 for all independent variables, namely CAR, ROA, OEOI, NIM, LDR, and LAR, so it is concluded that there is no violation of multicollinearity between independent variables. Thus, discriminant analysis has fulfilled the assumption that no multicollinearity will continue in the subsequent discriminant analysis.

Table. 4 Assumption Test of Average Difference Two Categories of Discriminant Functions

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 2	.081	438.915	12	.000
2	.509	117.813	5	.000

Based on Table 4, the Wilks' Lambda test results show that the discriminant function 1 shows a value of 0.081 with Sig. 0.000 < 0.05 so H0 is rejected. This shows a clear difference between the performance groups of bank capital in increasing core capital into the tier-book 1 or 2 group. Meanwhile, Wilk's Lambda test for discriminant function 2 shows a value of 0.509 with Sig. 0.000 < 0.05 so H0 is rejected. This shows a clear difference between the bank's capital performance groups in increasing core capital into tier-book 2 or 3 groups.

Table. 5 Significance test on the effect of financial risk variables on Grouping Category Tier-Book Groups 1, 2 and 3

Tests of Equality of Group Means					
Variable	Wilks' Lambda	F	df1	df2	Sig.
CAR	.689	40.000	2	177	.000
ROA	.935	6.143	2	177	.003
OEOI	.893	10.622	2	177	.000
NIM	.297	209.878	2	177	.000
LDR	.225	304.463	2	177	.000
RAR	.484	94.186	2	177	.000

Based on Table 5, the independent variables' results, CAR, ROA, OEOI, NIM, LDR, and LAR, have Sig values. < =0.05 (ie: 0.00). This means that there are differences between groups, or all independent variables,

namely CAR, ROA, OEOI, NIM, LDR, and LAR, have a significant influence on the grouping/classification of bank capital performance in increasing core capital into tier-books 1, 2, or 3. These financial risk variables influence the division of bank capital performance classification in increasing core capital into tier-books 1, 2, or 3 groups.

Table. 6 Values of Canonical Correlation

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	5.297[a]	84.6	84.6	.917
2	.964[a]	15.4	100.0	.701

Table 6 explains how much the variables provide differences in the performance of bank capital in increasing core capital into tier 1, 2 or 3 groups as a whole. The size of the relationship scale is between 0 to 1, the higher the canonical correlation value, the better the function explains the observed variables. It is known that the canonical correlation value of discriminant function 1 is 0.917. If squared $(0.917)2 = 0.840$, it can be concluded that 84% of all financial risk variables that are able to explain variations in bank capital performance differences in increasing core capital are in tier-books 1 or 2 groups, while the canonical correlation value of discriminant function 2 is 0.701. If squared $(0.701)2 = 0.491$, it can be concluded that only 49.1% of all financial risk variables are able to explain variations in the differences in bank capital performance in increasing core capital into tier 2 or 3 groups.

Table. 7 Fisher's Linear Discriminant Functions as Coefficient of Classification Function

	Capital Tier Classifications		
	Tier-1	Tier-2	Tier-3
CAR	-7.728	-7.032	-7.720
ROA	437.260	421.491	432.741
OEOI	78.709	76.613	77.700
NIM	162.095	153.952	152.760
LDR	8.217	9.234	9.496
LAR	18.552	20.183	19.434
(Constant)	-4650.712	-4537.082	-4639.241

Table 7 shows the same thing as the Canonical Discriminant Function Coefficients section above, which was previously discussed. The equation for the categorization/classification of bank capital performance in increasing core capital into tier 1, 2 or tier 3 groups is as follows:

Equation of classification/categorization in tier 1 group

$$\hat{Y}_1 = -4650.71 - 7.728\, CAR + 437.26\, ROA + 78.71\, OEOI + 162.09\, NIM + 8.217\, LDR + 18,55\, LAR$$

Equation of classification/categorization in tier 2 group

$$\hat{Y}_2 = -4537,08 - 7,032\, CAR + 421,49\, ROA + 76,61\, OEOI + 153,95\, NIM + 9,234\, LDR + 20,18\, LAR$$

Equation of classification/categorization in tier 3 group

$$\hat{Y}_3 = -4639.24 - 7,720\, CAR + 432.74\, ROA + 77,70\, OEOI + 152,76\, NIM + 9,49\, LDR + 19,43\, LAR$$

Table. 8 Measures of Classification/Grouping Accuracy

	Classification		Predicted Group Membership			Total
			Tier 1	Tier 2	Tier 3	
Original	Group	Tier Group 1	59	1	0	60
		Tier Group 2	0	58	2	60
		Tier Group 3	0	0	60	60
	%	Tier Group 1	98.3	1.7	0.0	100.0
		Tier Group 2	0.0	96.7	3.3	100.0
		Tier Group 3	0.0	0.0	100.0	100.0

Based on Table 8, the classification accuracy size is to assess how well the discriminant function is. The discriminant function can classify/classify for the performance of bank capital in increasing core capital into tier-book 1 group of 98.3 percent (59/60), for bank capital performance in increasing core capital into tier 2

group of 96.7 percent (58/60), and for performance bank capital in increasing core capital into tier-book 3 group by 100.0 percent (60/60). Thus, the accuracy of classification/grouping is outstanding (> 90 percent) on the performance of bank capital in increasing core capital into Book 1, 2, 3 groups based on financial risk factors, namely CAR, ROA, OEOI, NIM, LDR, and LAR.

Risk Identification

In this part of the study, we identify banking risks; identification and management of bank risk management as a very crucial matter in order to maintain the bank's core capital adequacy ratio. In banking, risk factors can come from various aspects, therefore, it is very important for banks to implement risk management. The definition of risk so far only discusses losses that occur in the future. Therefore, through this understanding, the application of risk management will then be the right way to find solutions for losses that may be faced by banks in the future. The application of risk management in banking will increase shareholder value, provide information for bank managers about possible future losses, improve methods and make systematic decisions based on available information. Information related to banking risk management related to capital adequacy then can be a reference for banks to measure bank performance more accurately and create a more robust risk management infrastructure to improve bank competitiveness. In addition, the implementation of risk management will also facilitate the banking supervisory authority to evaluate the risk of loss that may have the potential to have an impact in terms of capital and become the basis for assessment in determining bank strategy and supervision.

Table. 9 Risk Quantification

Risk Quantification	Type
Uncertainty Market Risk	• The risk of losses that occur due to the inability of the debtor to pay his debts, both principal and interest or both
	• The risk of loss that occurs because the Bank fails to fulfill its responsibilities from its funding sources originating from cash flows and/or from liquid assets that can be used as collateral by the bank, without disturbing the activities and financial condition of the Bank
	• Risk of loss that occurs because its balance sheet position changes due to changes in market prices
Strategic Risk	• The risk of loss that occurs because of the inaccuracy of the bank's quality control system in making decisions or losses due to the implementation of a failed strategic decision in expecting changes in the business environment. Both stem from weaknesses in formulating business strategies and inaccuracies in choosing tools to start accelerating business competition.
	• Risk of loss that occurs because of a decrease in the level of stakeholder confidence in the bank that comes from negative perceptions of the bank.
Natural Disaster Risk	• Risk of loss that occurs because of an inadequate or non-functioning internal bank processes optimally, human error, system failure, or external events that affect the Bank's operations.
	• Risk of loss that occurs due to changes in environmental conditions nationally or globally that affect financial stability and integration globally, both in the short and long term.

CAR in influencing the grouping/classification of bank capital performance in increasing core capital into BUKU 1, or 3 groups

The results of the study found that CAR had a positive and significant effect on the grouping/classification of bank capital performance in increasing core capital into BUKU 1, 2, or 3 groups. BOOK 3. The amount of CAR is measured by the ratio between bank capital and Risk Weighted Assets (RWA). Thus, a large CAR indicates the company has a large bank capital, the large bank capital, the company's core capital will also be greater, so the opportunity to have core capital in book 3 category, namely core capital above Rp. 5 trillion will get bigger. The results of the study support research (Sintha et al., 2016) which found that capital risk as measured by CAR has a significant effect on predicting bank health. This is because the Bank Indonesia regulations concerning CAR state that the CAR of commercial banks must be at least 8%. The results also support research (Sintha, 2019) which finds that the CAR for the capital adequacy ratio for the market ratio and the CAR for the capital adequacy ratio on the credit ratio has a negative and significant effect on the potential for bank bankruptcy. The higher the capital adequacy ratio, the credit ratio, and the operational ratio

(CAR), the more likely it is for a bank to be insolvent and vice versa. Therefore, the capital adequacy ratio, credit ratio, and operational ratio (CAR) can be part of the logit regression model equation.

ROA has an impact on the grouping/classification of bank capital performance when BUKU group 1, 2, or 3.
The results revealed that Tier 1 capital increases in BUKU 1, 2, or 3 BUKU 3 groups had a positive and significant effect on ROA for bank capital performance groups/classifications. A study found that ROA has a significant impact on the health of banks (Sintha et al 2016) ROA is the ability of a bank to operate in terms of profitability and overall operational efficiency The higher the ROA, the more efficient the bank's wealth management is. Therefore, the higher the ROA ratio, the lower the risk of the bank going bankrupt. Similarly, one study (Aktas et al ., 2015) found that profitability, as measured by ROA, had a significant positive effect on capital adequacy The results of this study are consistent with the trade-off theory The theory states that higher levels of profitability mean higher leverage because they pose less risk to borrowers. There are several important factors in this theory, such as taxes and agency costs. High-profit margins are almost always an indicator of business efficiency. A high return on assets increases capital by increasing retained earnings.

BOPOs affect the grouping/classification of bank capital performance as the capital base increases in groups 1, 2, and 3.
This study found that Operating Expenses / Revenue (OEOI) has a positive and significant effect on grouping / classifying bank capital performance in what I understand to be Volume 1 Level 1 Capital Growth, 2 or 3. Companies with a higher BOPO tend to be included in Book 3 because they represent the highest Tier 1 capital for these companies. This means that operational efficiency has a significant positive impact on capital adequacy. The higher the operational efficiency, the higher the Tier 1 capital ratio These results are consistent with research conducted (Yuliani et al ., 2015) showing that operating costs have a significant impact on operating profit (BOPO) on capital adequacy. Considering that BOPO is a ratio that measures operational risk, there is some influence between BOPO ratio and capital adequacy ratio. When banks are less efficient in managing operating costs relative to operating income and this translates into lower operating profits for banks, which is certainly an area where bank capital can be reduced. A reduction in operating income will decrease a bank's capital. On the other hand, the more profitable a bank is, the more profit it generates. Hence, the resulting profits are higher and this situation also increases the value of the base capital The findings of this study support research (Ulfa & Purwanto, 2020) which found that operating expenses and operating income have a significant impact on the overall funding of Islamic banks. BOPO is the ratio of operating costs to operating income, commonly referred to as BOPO or efficiency ratio, and is used to measure the bank's management's ability to control the ratio of operating costs to operating income operating result. Interest expense and operating income of banks are dominated by interest expense and interest income because the main business of a bank is to raise and distribute funds The smaller this ratio, the more effectively the bank bears operating costs and the fewer errors it makes. A better BOPO means banks have money to lend.

Impact of NIM on grouping/classification of bank capital performance when base capital is added to BUKU groups 1, 2 or 3
The results revealed that an increase in the net interest margin (NIM) of base capital for BUKU groups 1, 2, or 3 had a positive and significant impact on the grouping/classification of bank capital performance It tends to belong to Tier 3 because a company's higher NIM indicates that the company has higher Tier 1 capital. This finding is consistent with the research (Magdalena and Lizabeth, 2018) which found that the NIM had a significant effect on banks' capital adequacy ratios, as measured by the CAR This finding also supports a study (Hamidah et al., 2021) that found that the net interest margin (NIM) has a large positive effect on the capital adequacy ratio (CAR) Indeed, higher profitability offers a better opportunity to raise new capital Influencing the quality of mediation activities The more efficiently a bank allocates its productive assets, the more it can encourage capital growth, thereby improving bank performance to improve capital adequacy (Irdawati et al., 2018).

LDR affects bank capital performance grouping/classification when adding base capital to BUKU groups 1, 2 or 3
This study found that an increase in BUKU 1, 2, or 3 base capital had a significant negative impact on the group loan-to-loan ratio (LDR)/bank capital performance classification. Yes LDR, tends to be included in accounting group 1 due to the low capital base of the company. The results of this study support research (Hamidah et al., 2021), which found that the LDR variable has a significant negative impact on the capital adequacy variable This finding is also supported by a study (Cahyono & Anggraeni, 2015) and a study (Jaya, 2017) showing that the loan-to-debt ratio (LDR) has a significant negative impact on the capital adequacy ratio (CAR). provide support. This is because the higher the LDR, the lower the bank's statutory capital as it continues to use existing funds to repay the loan. In theory, if the LDR increases, it means that the total

amount of loans issued is greater than the total amount of third-party financing. The result is an increase in risk-weighted assets (RWA) and a bank's likelihood of being classified in the Book 2 or Book 1 group.

LAR to influence the grouping/classification of a bank's capital performance when adding Tier 1 capital to BUKU 1, 2 or 3 groups

The study found that increasing Tier 1 capital to Book 1, 2, or 3 groups has a significant negative impact on the Loan Value Ratio (LAR) when grouping/classifying a bank's capital performance. understood. The smaller the company, the more likely it is to be classified in Accounting Group 1 due to the lower core capital of the company. A negative LAR value indicates that a higher LAR indicates a bank's liquidity situation is more dangerous, and conversely, a lower LAR indicates a less effective bank's lending. The results of this study are consistent with research (Bella & Hakim, 2016) that found that a bank's risk profile, as measured by liquidity, has a significant impact on its capital position. For the banking industry, good risk management affects competitiveness. The greater the risk a bank is exposed to, the greater the need for bank capital. This means that banks that manage risk well need less capital to expand their business quickly. To minimize risk, bank management must have sufficient expertise and competitiveness to anticipate and better manage the various risks that may arise.

Management Strategy
Capital Planning
Capital planning is a significant activity for banks. This should be an influential agenda that accompanies a bank's annual strategic planning process. By emphasizing strict regulations on the level of capital during several financial reporting periods, it is hoped that capital planning efforts can ensure performance stability and the sustainable process of banking activities of long-term capital requirements. The key elements that should be included in a capital plan are a summary of the bank's business strategy containing a narrative about the business, local market entity, and economic scenario for the next five years. An estimate of the adequacy of the bank's financial aspects for a minimum of five years; through balance sheet analysis and bank profitability; Furthermore, the assessment of the principal risks and uncertainties faced by banks, including credit, interest rates, liquidity, prices, operations, compliance, strategic, and reputation related to the quantification of bank risks which include Uncertainty Market Risk, Strategic risk and natural disaster risk. A summary of the assessment of the principal risks and uncertainties that banks will face in the future allows banks to be more careful in regulating and allocating the bank's central capital policy, including dividends, to maintain access to capital adequacy.

Therefore, the strategic plan of bank capital planning must be documented in writing. This is important because the written program allows all stakeholders to read and appreciate the efforts and plans that the bank will carry out as a form of accountability to all stakeholder elements. A written plan regarding bank capital planning must be clear, concise, and easy to read. Key features of a written plan may include, e.g., the Bank's Mission, Vision, and Core Values towards stakeholders; A brief statement on the five-year banking strategy; a Summary assessment of the bank's current business operating environment, including its main risks itself must mitigate. Furthermore, the identification of goals and objectives and the major initiatives to achieve these goals and objectives. The scenario's narrative and the strategic plan of capital planning contain assumptions for the next several years (e.g., markets, economy, regulations, laws, summary financial forecasts including income statement, balance sheet, and key performance metrics).

Banking Strategic Plan Simulation
Preparation is the key to a successful planning session related to achieving an optimal long-term capital adequacy ratio. The correct strategic plan simulation is to develop a list of problems faced by banks as well as an assessment of banking performance which includes, e.g., Market and Customers, Local, Regional, and National Economy, Financial Position, including Loan and Capital Quality, Regulatory and Legislative Environment, Human Resources: Ability, Employee Team, Management ability, Technology, and Risk. Summary of SWOT Assessment, which contains the basis of possible risks; mitigation opportunities; an optimistic level in mitigating the risks faced and a pessimistic level for the simulation of troubles that will be faced; Identification and Assessment of Key Issues and Risks; Goals, and Key Initiatives.

Banking Financial Inclusion Strategy
In dealing with banking financial problems, primarily to maintain the capital adequacy ratio for risk quantification with the type of uncertainty market risk, as well as natural disaster risk, one can take strategic steps in accessing capital markets, e.g., rights issue; Basically, a rights issue is defined as a limited public offering for shares. The bank has adopted a policy to issue this right issue or Pre-emptive Rights (HMETD) to increase working capital. The correct issue is the right offered by the company to the old shareholders first to own the newly issued shares. Apart from being a source of money for the company, the rights issue run by the bank also aims to allow the old shareholders to maintain their percentage of share ownership. The advantages

for banks that conduct rights issues are, e.g., As a source of sufficient capital for banks that will positively impact banking performance, a bank's financial statements will be healthier. This is because the capital from the rights issue trade can be used to reduce the existing bank debt burden; The offer does not require procedures or rules such as during an initial public offering or going public; and Can be combined with other types of securities derivatives, such as warrants and convertible stocks.

Strengthening institutional aspects
Customers must confirm whether a Guaranteed Authority ensures their banking institution. The main objective of financial authorities is to prevent a "scenario run on the bank," which destroys many banks, especially in the case of the Great Depression and recession. For example, with the threat of bank closure or a small group of worried customers rushing to withdraw their money. The urgency related to banking authority institutions now offers insurance, positively impacting many consumers who are not concerned by customers' deposits. As a result, the bank has a better chance of tackling the problem under controlled circumstances without disrupting the bank.

Strategy for Selection of Appropriate Banking Products
The strategy for selecting the right product for banks allows financial risk mitigation to be adequately handled. Appropriate banking products are a surefire way for banks to win sympathy from the public. Because in any business field, a producer must be able to capture market tastes. In a sense, producers must know what people want today and in the future, including banks. Therefore, the ability and ability to capture market tastes is an important aspect to support banking business activities. Management in banking marketing that is more professional is the desired bank marketing management. Marketing management at this bank will be better if the role of human resources in it is also active. The effectiveness of marketing and the selection of appropriate banking products will depend on the method or strategy adopted by the bank. As a result, selecting relevant banks' relevant products will fulfill the needs for banking products and services, optimizing customer satisfaction with bank services, increasing banking turnover, optimizing market share, increasing the strength of competition between banks, and expanding business networks.

Governance of Operation Efficiency
The bank's operational efficiency aims to make bank activities run more optimally in serving their customers. With the efficiency that is done, a bank can minimize the number of expenses and vice versa maximize the number of income. Several factors cause inefficiency in these banks, e.g., First, the bank's organizational structure is too fat. In a sense, the organization's ranks within the bank are broad enough so that in terms of operational financing, it also swells. To overcome this, the bank's management must be able to streamline its organizational structure. Second, the composition of business units with non-business units is disproportionately lacking. It will only lead to waste in the bank's operations as a whole or comprehensively. Therefore, the banking management must make a special internal rule or regulation for inner banks. The policy relates to the company's efficiency so that behaviors that are considered inefficiency can be abandoned.

Conclusions

This study provides a comprehensive picture of the soundness of banks through aspects of bank capital adequacy assessment. The Bank Soundness Level is also the result of the bank's condition assessment conducted on the bank's risk and performance. Meanwhile, Tier 1 and Tier 2 reflect the composite rating of banking capital adequacy, which is the final ranking of the assessment results of the soundness of banks. Therefore, it is essential to realize and implement control over capital adequacy exclusively. Control over bank capital is to regulate the implementation of integrated risk management considering that the risk components include, e.g., Uncertainty Market Risk, Strategic Risk, and Natural Disaster Risk, which can occur at any time. Therefore, the bank must maintain or improve the Bank Soundness Level by applying the principles of prudence and risk management in carrying out business activities. And take the necessary steps to preserve or enhance the Bank's Soundness Level. An essential aspect in maintaining bank capital adequacy that needs to be considered optimally is identifying the risk profile that will be faced and then formulating strategic steps to meet these challenges. Apart from that, the supporting aspects from the inner side of the organization include institutional optimization and Good Corporate Governance, which are the main supportive efforts of realizing organizational performance, in this case, the assessment of the optimal bank soundness level. The principles of GCG and the focus of the evaluation on the implementation of GCG principles refer to the provisions governing good corporate governance for commercial banks by considering the characteristics and intricacy of the bank's business. Then, the profitability factor and access to capital by a bank are equally important so that the bank's soundness level and capital adequacy are maintained.

The ranking of the consolidated profitability factors is based on an extensive and structured analysis of certain profitability parameter or indicators generated from the Bank's consolidated financial statements and other financial information. It takes into account the level of significance and materiality measure of market share. Meanwhile, the Bank Soundness Level Assessment using a risk approach (Risk-based Bank Rating) is carried out based on a thorough analysis of the Bank's performance, risk profile, problems encountered, and development prospects. In other words, a bank in a very healthy condition is considered competent enough to face significant negative impacts from changes in business conditions. Other external factors are reflected in the assessment of factors which includes risk profile, GCG implementation, profitability (earnings). And capital, which is generally very good. Even when there are weaknesses, but it usually sought to be minimized so that they appear insignificant, since the goal of maintaining the health of the bank through consideration of the aspect of capital adequacy is the most prominent part which later leads to the gain of public trust for the bank to maintain.

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