Luxury: Landscape of Business Administration

VERIFIED DIGITAL DOCUMENT FROM First Ciera Publisher

Health Level of PT Bank Perkreditan Rakyat Duta Perdana Using CAMELS Method Period 2016-2020

Pujiono Eddy[a*], Dinda Meivina[b], Mimelientesa Irman[a], Intan Purnama[a], Ahmad Zulkarnain Estu[a]

[a]Business Faculty, Institut Bisnis dan Teknologi Pelita Indonesia, Indonesia

[b]PT Bank Perkreditan Rakyat Duta Perdana, Indonesia

*Corresponding Author: pujiono.eddy@lecturer.pelitaindonesia.ac.id

Article History
Received
3 January 2023
Revised
8 January 2023
Accepted
18 January 2023
Published
31 January 2023

ABSTRACT

This study aims to analyze the health level of the PT. Bank Perkreditan Rakyat (BPR) Duta Perdana Pekanbaru of 2016-2020 period using the CAMELS method. The data analysis technique used logistic regression testing on financial ratios. The value of CAR (Capital Adequacy Ratio) at BPR Duta Perdana Pekanbaru during 2016-2020 was 3.39, namely in the fourth quarter of 2016, it shows the level of health in terms of a low asset adequacy ratio but still meets the minimum requirements of Bank Indonesia regulations. The research shows that the health level assessment using the CAMELS method from PT. Bank Perkreditan Rakyat BPR) Duta Perdana Pekanbaru is in the unhealthy category.

Keywords: CAMELS, Bank Soundness Level, Financial Ratios

INTRODUCTION

The world of banking is one of the institutions that plays a very important role in the economic sector of a country (especially in the fields of finance, economy and development). Banking (Nyoto et al., 2021; Putri et al., 2022; Renaldo et al., 2021) is everything that concerns banks, institutions, business activities, as well as methods and processes in carrying out their business activities. (Imamah, 2012) stated that a bank is a business entity whose function is to collect funds from the public in the form of savings and distribute them to the public in the form of credit and or other forms in order to improve the standard of living of the bank's people. The condition of the Indonesian economy which experienced a downturn as a result of the economic crisis in 1997 resulted in the bankruptcy (Nenu et al., 2018; Ramalingegowda, 2014) of a number of these banks which then provided motivation for other banks (Quaye et al., 2020) to maintain stability in the banking world and continue its main function. According to Law Number 10 of 1998 concerning Banking, that the main function of Indonesian banking is as a collector and distributor of public funds aimed at supporting the implementation of national development, in the context of increasing equitable development, economic growth and national stability, towards increasing the standard of living of the common people (Lianawati & et al, 2016)

Report on the financial data of PT. BPR Duta Perdana Pekanbaru Branch in the period 2016 to 2020, can be seen in the following table:

Table 1 Financial Data of PT. BPR Ambassador Perdana Pekanbaru Branch 2016 to 2020 in thousands (Rp)

Indicator	2016	2017	2018	2019	2020
Capital	7,000,000,000	7,000,000,000	7,000,000,000	7,000,000,000	7,000,000,000
ATMR	3,128,670,500	3,740,064,000	7,059,317,000	7,340,900,000	7,521,500,000
Profit before tax	724,590,000	655,670,000	(214,566,780)	(271,320,400)	(245,672,100)
Total assets	7,124,550,800	7,169,595,000	7,279,646,000	7,320,344,000	7,320,344,000
Credit given	5,987,664,000	6,448,767,000	6,121,869,000	6,186,900,000	6,021,340,000
Third-party funds	3,224,510,000	3,680,107,000	3,350,343,000	3,421,780,000	3,462,345,000
APYD	910,870,000	1,064,160,000	690,956,000	980,120,000	1,021,870,600

Source: Financial Report of PT. BPR Ambassador Perdana Pekanbaru Branch, 2023

Table 1 identifies that there are ratio fluctuations or inaccuracies, due to increases and decreases in financial values, such as capital, RWA, profit before tax, total assets, loans extended, third party funds, APYD,

total earning assets. CAR based on Bank Indonesia (BI) standards of at least 8% is classified as healthy in 2017, CAR BPR Pekanbaru Branch in 2016 capital is 7,000,000 and in 2020 with a value of 7,000,000 means the capital of BPR Pekanbaru Branch is in the same position, no increase or decrease. For RWA in 2016 it was 3,128,670,600 and is increasing every year until in 2020 it becomes 7,921,500,000, meaning that RWA from 2016 to 2020 has always experienced a fairly high increase, namely 4,392,829,500. Profit before tax in 2017 has decreased from 2016, but for 2018-2020 it cannot be known because PT. BPR Duta Perdana Pekanbaru Branch experienced several losses (according to the Head of Finance at the BPR). For total assets from 2017 to 2018 it has decreased but in 2019-2020 it has increased. For loans granted in 2017 amounted to 6,448,767 and in 2018 amounted to 6,121,869, meaning that it has decreased but in 2019 it has increased and decreased again in 2020. For third party funds in 2017 to 2018 it has decreased and in 2018 2019-2020 has increased. APYD experienced a decline that occurred in 2017 to 2018, then increased in 2019-2020, and the number of productive assets from 2017 to 2018 also decreased and in 2019-2020 experienced an increase.

Overall, the financial data of PT. BPR Duta Perdana Pekanbaru Branch 2016-2020 experienced a decline. Seeing the reality above, it is very important for banks to analyze the soundness of the bank to maintain the continuity of bank operations in the face of competition. Therefore, the CAMELS method is needed, namely capital, asset quality, management, earnings or earnings, liquidity, and sensitivity to market risk. CAMELS analysis is used to analyze and evaluate the financial performance of commercial banks in Indonesia with several levels, namely the levels of sound, moderately healthy, less healthy and unhealthy. Based on the background that has been described, the purpose of this study was to determine the soundness level of the bank at PT. BPR Duta Perdana Pekanbaru Branch based on the CAMELS method.

LITERATURE REVIEW

Definition of Banks

(Kuncoro, 2012) states the definition of a bank is a financial institution whose main business is to collect funds and channel these funds back to the public in the form of credit and provide services in payment traffic and money circulation.

Furthermore, if viewed from the history of the beginning of the bank, the meaning of bank comes from Italian, namely Banco which means bench. The bench itself refers to the table used by bankers to carry out operational activities serving the public or customers. The term bench is also increasingly developing into a bank.

In addition, according to Financial Accounting Standards (PSAK) Number 31, it is explained that a bank is an institution that acts as a financial intermediary between parties who have excess funds and parties who need funds, as well as an institution that functions to facilitate payment traffic.

From the description above, it can be explained that a bank is a company engaged in the financial sector, meaning that banking business is always related to problems in the financial sector. So, it can be concluded that the banking business includes three main activities, namely: raising funds, channeling funds and providing other bank services.

Banking Functions

There are 3 functions of a bank according to (Budisantoso, 2014), namely 1) Bank as an Agent of Trust, is an institution based on a belief. The main basis for banking activities is trust, whether it is as a fund collector or channeling funds; 2) Bank as Agent Of Development, is an institution that mobilizes useful funds for the economic development of a country. The activities of these banks in the form of collecting as well as channeling of funds are necessary for the smooth running of economic activities in the real sector; 3) Bank as Agent of Service, is an institution that provides a service to the public. In this case, the bank provides banking services to the public so that the community feels safe and comfortable in saving their funds.

Rural Credit Banks (*Bank Perkreditan Rakyat* / BPR)

Rural Banks (BPR) are banks that carry out business activities conventionally or based on sharia principles, which in their activities do not provide services in payment traffic. BPR activities are much narrower than those of commercial banks because BPRs are prohibited from accepting demand deposits, foreign exchange activities, and insurance.

BPR business activities, namely 1) Collecting funds from the public in the form of deposits in the form of time deposits, savings, and or other equivalent forms; 2) Providing credit; 3) Provide financing and placement of funds based on Sharia Principles, in accordance with the provisions stipulated by Bank Indonesia; 4) Placing

funds in the form of Bank Indonesia Certificates (SBI), time deposits, certificates of deposit, and/or savings at other banks.

Comparison of Commercial Banks and Rural Banks is based on the business activities and the above prohibitions, in general BPRs have more limited business activities compared to Commercial Banks. Commercial banks may collect funds in the form of deposits from the public in the form of demand deposits, savings and time deposits, while BPRs may not collect funds in the form of demand deposits and may not participate in payment traffic. Commercial banks can conduct business activities in foreign currency, while rural banks are not allowed. Commercial banks can participate in equity in financial institutions and deal with bad loans, while BPRs are not allowed to participate in capital at all. In the case of conducting insurance business, Rural Banks and Commercial Banks are equally prohibited.

Bank Performance

Performance or bank performance is an illustration of the success achieved by the bank in its activities, both regarding financial factors, marketing, fundraising and channeling funds (Purba & Herminto, 2015). According to (Hasibuan, 2015) bank performance regarding the financial aspect, namely the description of the bank's financial condition in a certain period, both aspects of raising funds or channeling funds, which are usually assessed by indicators of capital adequacy, asset quality, liquidity, and bank profitability. Bank performance can be seen from the soundness level of the bank. The health of the bank will be reflected in the aspects of minimum capital (CAR), asset quality, management, ability to earn profits and ability to pay off short-term obligations.

Financial statements

Financial statements are basically the result of a reflection of the many transactions that occur within a company. Financial transactions and events (Chandra et al., 2018) are recorded, classified, and summarized in units of money, and then interpretation is carried out for various purposes (Saraswati, 2013) . These various actions are none other than the accounting process which is essentially the art of recording, classifying and summarizing transactions and events which are at least partly financial in nature, in an appropriate manner and in the form of rupiah and the interpretation of the results.

Bank Health

According to (Kasmir, 2012) bank health is the ability of a bank to carry out normal banking operations and be able to fulfill all of its obligations properly in ways that are in accordance with applicable banking regulations. This assessment aims to determine whether the bank is in healthy, moderately healthy, less healthy and unhealthy conditions. So that Bank Indonesia as the supervisor and supervisor of banks can provide direction or instructions on how the bank's operations should be run or even stopped. Health assessment will affect the ability of the bank and customer loyalty to the bank concerned. One tool to measure the health of banks in Indonesia to date is the CAMELS analysis (Capital, Assets Quality, Management, Earnings (Renaldo & Murwaningsari, 2023), Liquidity, and Sensitivity to market risk).

CAMELS analysis

The definition of CAMEL financial ratios, according to (Putri, 2015) is the aspect that has the most influence on the financial condition of a bank which also affects the soundness of the bank. CAMEL becomes the object of bank inspection conducted by bank supervisors.

CAMELS analysis is regulated in Bank Indonesia Regulation Number 6/10/PBI/2004 concerning the Rating System for Commercial Banks and Bank Indonesia Regulation Number 91/PBI/2007 Concerning the Rating System for Commercial Banks Based on Sharia Principles. Assessment of the soundness level of a bank based on Bank Indonesia regulations includes an assessment of CAMELS factors, which consist of:

Capital Factor (Capital)

CAR (Capital Adequacy Ratio) is a capital adequacy ratio that shows the ability of banks to provide funds used to overcome possible loss ratios. According to (Kasmir, 2012), the valuation is based on the capital owned by one of the banks. One of the assessments is the CAR (Capital Adequacy Ratio) method, namely by comparing capital to risk-weighted assets (RWA).

$$CAR = \frac{Bank\ Capital}{RWA}\ x\ 100\%$$

This assessment is intended to see how or how much the bank's capital is adequate to support the bank's needs.

Asset Quality Factor

Under normal conditions, most of the assets of a bank consist of loans and other assets that can generate or become a source of income for the bank, so that these types of assets are classified as earning assets. According to (Kasmir, 2012), the assessment is based on the quality of the productive assets owned by the bank, namely the ratio of earning assets classified to earning assets. This ratio is used to measure the probability of receiving the invested funds back.

$$Asset\ Quality\ Factor = \frac{Productive\ Asset}{AYPD}\ x100\%$$

Management Factors (Management)

Assessment of management aspects uses the Net Interest Margin ratio. According to (Kasmir, 2012), Net Interest Margin is "the ratio used to measure a bank's ability to generate net income from its main operating activities".

$$NIM = \frac{Net\ Incoma}{Productive\ Asset}\ x\ 100\ \%$$

Assessment of management factors uses a list of questions that have been determined by BI regulations. List of defined questions: 40 questions for general management, and 60 questions for risk management. Assessment of the soundness of the management factor is given a value of 4 if the answer is positive with a "yes" answer. And for aspects of management that are considered negative, they are not given a credit score or 0.

Profitability Factor (Earnings)

The purpose of using this aspect of assessment is to determine the bank's ability to generate profit through bank operations.

$$ROA = \frac{Earning\ Before\ Tax}{Total\ Assets}\ x\ 100\%$$

According to (Kasmir, 2012), the assessment in this element is based on two types, namely: 1) The ratio of profit to total assets (Return on Assets). ROA (Sari et al., 2021) is used to measure the effectiveness of the bank in obtaining overall profits; 2) Ratio of Operating Expenses to Operating Income (BOPO). BOPO is a comparison between operating expenses to national income.

Liquidity

This aspect of liquidity is based on the bank's willingness to pay all of its debts, especially savings deposits, demand deposits and time deposits when billed and can fulfill all credit applications that deserve approval. According to (Pandia, 2015), Loan to Deposit Ratio (LDR) is "a ratio that states how far a bank has used depositors' money to provide loans to its customers".

The purpose of assessing this aspect is to determine the bank's ability to meet short-term obligations, repay depositors, and be able to meet credit requests.

$$LDR = \frac{Total\ Third\ Party\ Credit}{Total\ Third\ Party\ Funds}\ x100\%$$

Risk sensitivity factor (Sensitivity to Market Risk)

This factor shows how much a bank's sensitivity level to market risk. Market risk or market risk is the result of movements in market prices of the portfolio owned by a bank which can be detrimental to the bank. Aspects of sensitivity to market risk can be measured by:

$$Interest\ Expense\ Ratio = \frac{Interest\ Expense}{Total\ Deposit}$$

Bank Health Assessment

To date, the assessment of the soundness level of banks in Indonesia is broadly based on the CAMELS factor. These five factors are indeed factors that determine the condition of a bank. If a bank experiences problems with one of these factors, then the bank is experiencing difficulties or is unhealthy at that bank.

METHODOLOGY

Place and time of research

The type of research used is quantitative research, namely research that emphasizes testing theories through measuring research variables with numbers and conducting data analysis with statistical procedures. This research was prepared based on the financial reports at PT. Dura Perdana Rural Bank for the period 2016 to 2020. The variables used in this study consist of an analysis of financial ratios, namely: Capital Asset Quality (CAR), Productive Asset Quality (KAP), Net Interest Margin (NPM), Return on Assets (ROA), and Loan to Deposit Ratio (LDR).

The location of this research was conducted at PT. People's Credit Bank (BPR) Duta Perdana on Jl. Suka Karya, Panam, Pekanbaru using the relevant financial report documents. This research was conducted for approximately 6 months (September 2020 to March 2021.)

Population and Sample

The population in this study is PT. BPR Ambassador Perdana Pekanbaru. And the sample in this study is the financial statements of PT. BPR Duta Perdana from 2016 to 2020.

Sampling technique

This study uses secondary data and library research as a sampling technique.

Data analysis technique

In this study the data analysis technique chosen to analyze the data must be in accordance with the research pattern and the variables to be studied. This study uses logistic regression testing of financial ratios.

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Descriptive statistical analysis is used to determine the description of a data seen from the minimum, maximum, average, and standard deviation values based on CAR, KAP, NIM, ROA, and LDR variables, and bank classification. Based on the descriptive statistical analysis, the sample description is obtained as follows.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CAR	20	0.660	3.390	1.458	0.716
KAP	20	5.560	10.700	7.432	1.367
NIM	20	-4.260	12.410	2.002	7.068
ROA	20	-4.470	12.250	1.871	6.638
LDR	20	17.470	235.510	155.432	57.150
Bank Health	20	0.000	1.000	0.600	0.503
Valid N (listwise)	20				

Source: Processed Data, 2021

Based on table 2. it can be seen that the results of the descriptive analysis for all the data studied are as follows: the highest CAR ratio is 3.39 and the lowest is 0.66 with an average value of 1.4575. The KAP ratio with the highest score is 10.70 and the lowest is 5.56 with an average score of 7.4315. The NIM ratio for the highest score is 12.41 and the lowest is -4.26 with an average score of 2.0020. The highest ROA ratio is 12.25 and the lowest is -4.47 with an average value of 1.8710. The highest value LDR ratio is 235.51 and the lowest is 17.47 with an average value of 155.4318. Finally, for bank health, 12 times it was declared healthy and 8 times it was declared unhealthy.

To find out the soundness level of a bank from the Capital Adequacy Ratio (CAR) based on the criteria set by Bank Indonesia, it can be seen in Table 3 as follows:

Table 3. CAR Ratio Values for the 2016-2020 Period

Period	CAR Ratio Calculation Results									
	2016	Criteria	2017	Criteria	2018	Criteria	2019	Criteria	2020	Criteria
Quarter I	2.32	Not healthy	2.05	Not healthy	1.08	Not healthy	0.95	Not healthy	0.98	Not healthy
Quarter II	1.90	Not healthy	1.63	Not healthy	0.86	Not healthy	0.86	Not healthy	0.87	Not healthy

Period	CAR Ratio Calculation Results									
	2016	Criteria	2017	Criteria	2018	Criteria	2019	Criteria	2020	Criteria
Quarter III	1.76	Not healthy	1.50	Not healthy	0.83	Not healthy	0.74	Not healthy	0.66	Not healthy
Quarter IV	3.39	Not healthy	2.61	Not healthy	1.33	Not healthy	1.43	Not healthy	1.40	Not healthy

Source: Processed Data, 2021

Table 3 shows that all banks meet the minimum CAR requirements according to Bank Indonesia regulations, namely a minimum of 8%. The low level of bank soundness can be seen from the CAR, namely CAR <12%, which is the highest level of bank soundness. The highest CAR value in 2016-2020 at BPR Duta Perdana was 3.39, namely in the fourth quarter of 2016. While the lowest CAR was 0.66 in Quarter III 2020. The CAR value at BPR Duta Perdana Pekanbaru during 2016-2020 shows the level of soundness in terms of asset adequacy ratio is low but still meets the minimum requirements set by Bank Indonesia.

To find out the soundness level of a bank from Earning Asset Quality (KAP) based on the criteria set by Bank Indonesia, it can be seen in Table 4 as follows:

Table 4. KAP Ratio Values for the 2016-2020 period

Period	KAP Ratio Calculation Results									
	2016	Criteria	2017	Criteria	2018	Criteria	2019	Criteria	2020	Criteria
Quarter I	7.21	Unhealthy	6.74	Unhealthy	9.80	Unhealthy	7.32	Unhealthy	6.88	Unhealthy
Quarter II	7.88	Unhealthy	7.37	Unhealthy	10.70	Unhealthy	8.00	Unhealthy	7.52	Unhealthy
Quarter III	7.23	Unhealthy	6.76	Unhealthy	9.82	Unhealthy	7.34	Unhealthy	6.79	Unhealthy
Quarter IV	5.94	Unhealthy	5.56	Healthy Enough	8.07	Unhealthy	6.03	Unhealthy	5.67	Unhealthy

Source: Processed Data, 2021

Table 4 shows that all banks meet the minimum KAP requirements according to Bank Indonesia regulations, namely a minimum of 6%. The soundness level of the bank is seen from the KAP, namely KAP > 6%, which is the soundness level of the bank in the Healthy category. The highest KAP score in 2016-2020 at BPR Duta Perdana was 10.70, namely in the second quarter of 2018. While the lowest KAP was 5.56 in Quarter IV 2017. The KAP score at BPR Duta Perdana Pekanbaru during 2016-2020 shows the level of soundness in terms of asset quality ratios is low but still meets the minimum requirements set by Bank Indonesia.

Next is the soundness level of the bank in terms of Net Interest Margin (NIM) based on the criteria set by Bank Indonesia which can be seen in Table 5 as follows:

Table 5. NIM Ratio Values for the 2016-2020 Period

Period	NIM Ratio Calculation Results									
	2016	Criteria	2017	Criteria	2018	Criteria	2019	Criteria	2020	Criteria
Quarter I	11.09	Healthy	9.19	Healthy	-3.19	Not healthy	-3.80	Not healthy	-3.51	Not healthy
Quarter II	11.19	Healthy	9.27	Healthy	-3.22	Not healthy	-3.84	Not healthy	-3.55	Not healthy
Quarter III	12.41	Healthy	10.28	Healthy	-3.57	Not healthy	-4.26	Not healthy	-3.93	Not healthy
Quarter IV	10.76	Healthy	8.91	Healthy	-3.09	Not healthy	-3.69	Not healthy	-3.41	Not healthy

Source: Processed Data, 2021

Table 5 shows that all banks meet the minimum NIM requirements according to Bank Indonesia regulations, namely a minimum of 2%. The soundness level of the bank seen from the NIM, namely KAP > 2% is the soundness level of the bank in the Healthy category. The highest NIM value in 2016-2020 at BPR Duta Perdana was 12.41, namely in the third quarter of 2016. While the lowest NIM was -4.26 in Quarter III 2019. The NIM value at BPR Duta Perdana Pekanbaru during 2016-2017 shows the level of soundness in terms of a high NIM ratio and meets the minimum requirements set by Bank Indonesia. But in 2018-2020 the NIM value is below the minimum value, which is <2%. The higher the NIM value, the higher the bank's soundness in terms of NIM value. Conversely, the lower the NIM value, the lower the soundness level of the bank in terms of NIM value.

Next is the soundness level of the bank from Return on Assets (ROA) based on the criteria set by Bank Indonesia which can be seen in Table 6 as follows:

Table 6. ROA Ratio Values for the 2016-2020 period

Period	ROA Ratio Calculation Results									
	2016	Criteria	2017	Criteria	2018	Criteria	2019	Criteria	2020	Criteria
Quarter I	9.60	Very healthy	8.63	Very healthy	-2.78	Not healthy	-3.50	Not healthy	-3.17	Not healthy
Quarter II	10.37	Very healthy	9.33	Very healthy	-3.01	Not healthy	-3.78	Not healthy	-3.42	Not healthy
Quarter III	12.25	Very healthy	11.02	Very healthy	-3.55	Not healthy	-4.47	Not healthy	-4.04	Not healthy
Quarter IV	8.67	Very healthy	7.80	Very healthy	-2.51	Not healthy	-3.16	Not healthy	-2.86	Not healthy

Source: Processed Data, 2021

Table 6 shows that all banks meet the minimum ROA requirements according to Bank Indonesia regulations, namely a minimum of 1.5%. The soundness level of the bank seen from ROA, namely ROA > 1.5% is the soundness level of the bank in the Healthy category. The highest ROA value in 2016-2020 at BPR Duta Perdana was 12.25, namely in the third quarter of 2016. While the lowest ROA was -4.47 in Quarter III 2019. ROA value at BPR Duta Perdana Pekanbaru during 2016-2017 indicates soundness in terms of a high ROA ratio and meets the minimum requirements set by Bank Indonesia. But in 2018-2020 the ROA value is below the minimum value, which is <1.5%. The higher the ROA value, the higher the soundness level of the bank in terms of ROA value. Conversely, the lower the ROA value, the lower the soundness level of the bank in terms of ROA value.

Next is the soundness level of the bank from the Loan to Deposit Ratio based on the criteria set by Bank Indonesia which can be seen in Table 7 as follows:

Table 7. LDR Ratio Values for the 2016-2020 Period

Period	LDR Ratio Calculation Results									
	2016	Criteria	2017	Criteria	2018	Criteria	2019	Criteria	2020	Criteria
Quarter I	235.51	Not healthy	224.24	Not healthy	231.74	Not healthy	114.62	Not healthy	220.56	Not healthy
Quarter II	174.65	Not healthy	164.81	Not healthy	171.85	Not healthy	76.50	Healthy	163.56	Not healthy
Quarter III	188.24	Not healthy	178.20	Not healthy	185.82	Not healthy	92.04	Healthy Enough	176.85	Not healthy
Quarter IV	152.38	Not healthy	143.79	Not healthy	149.94	Not healthy	77.21	Healthy	142.71	Not healthy

Source: Processed Data, 2021

Table 7 shows that all banks meet the minimum LDR requirements according to Bank Indonesia's high regulations, namely 50% < LDR > 85%. The soundness level of the bank seen from the LDR is < 50% and > 85% is the soundness level of the bank which is categorized as Healthy. The highest LDR value in 2016-2020 at BPR Duta Perdana was 235.51, namely in the first quarter of 2016. Meanwhile the lowest LDR was 76.50 in Quarter II 2019. The LDR value at BPR Duta Perdana Pekanbaru in 2019 was in quarter II up to the fourth quarter shows a soundness level in terms of a high LDR ratio and meets the minimum requirements set by Bank Indonesia. But in 2020 the LDR value is > 85% so it is in an unhealthy condition.

Testing the Fit of the Logistic Regression Model to Data with -2log

Likelihood and Omnibus Test

In logistic regression the results of the statistical difference -2log-likelihood between the logistic regression model that uses a set of independent variables and a simpler model (the simpler model) can be used to determine whether the logistic regression model that uses a set of independent variables is better in terms of matching or adjusting data compared to a simple logistic regression model (without independent variables). If the -2log-likelihood statistic on the logistic regression model that uses a set of independent variables (deviance) is smaller than the simpler model (restrict deviation), then the logistic regression model that uses a set of independent variables is better in terms of matching the data than the model that uses that simpler.

Table 8. Model Fit Test with Log Likelihood Approach

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	26.920	5	<,001
	Block	26.920	5	<,001
	Model	26.920	5	<,001

Source: Processed Data, 2021

Based on Table 8, the decrease in -2 log likelihood values shows that this research model is declared fit, meaning that the addition of independent variables, namely CAR, KAP, NIM, ROA, and LDR to the logistic model will improve the fit model in this study (fit or feasible model). To test whether the logistic regression model involving independent variables simultaneously is statistically significantly better than the previous model (simple model) in terms of matching data, the Prob value approach (LR statistic) is used. It is known in Table 8 that the Prob value (LR statistic) is 0.001 <0.05, so it is concluded that the logistic regression model which involves independent variables simultaneously, is statistically significantly better than the previous model (simple model) in terms of matching data.

Coefficient of Determination (Nagelkerke R Square)

In logistic regression, the Nagelkerke R-squared statistic can be used to measure the ability of the logistic regression model to fit or adjust the data. In other words, the statistical value of the Nagelkerke R-squared can be interpreted as a value that measures the ability of the independent variables to explain or explain the dependent variables. Table 9 presents the statistical value of the Nagelkerke R-squared.

Table 9. Nagerlkerke R Square

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	10.114	0.740	0.812

Source: Processed Data, 2021

Based on Table 9, the statistical value of Nagelkerke R-squared is 0.812. This value is interpreted as the ability of CAR, KAP, NIM, ROA and LDR to influence bank classification by 81.2%, the remaining 18.8% is explained by variables or other factors.

Hypothesis Testing/Partial Effect (Wald Test)

In the partial effect significance test can be tested with the Wald test. Can be seen in table 10. below:

Table 10. Test of Significance of Partial Effect (Wald Test)

	B	S.E.	Wald	df	Sig.	Exp(B)
CAR	0.793	0.460	7.199	1	0.007	1.211
KAP	0.270	0.972	6.513	1	0.011	0.311
NIM	0.321	0.944	8.452	1	0.004	0.871
ROA	0.301	0.640	8.345	1	0.004	0.120
LDR	0.090	0.700	0.679	1	0.410	0.914
Constant	0.241	0.620	0.106	1	0.974	0.000

Source: Processed Data, 2021

Based on Table 10, the logistic regression equation (model) is obtained as follows.

$$ln\left(\frac{p}{1-p}\right) = 0.241 + 0.793\text{CAR} + 0.270\text{KAP} + 0.321\text{NIM} + 0.301\text{ROA} + 0.090\text{LDR}$$

Based on Table 10 it is known 1) The coefficient value of the CAR variable is 0.793, which is positive. This value can be interpreted as the CAR variable has a positive effect on bank classification or the probability variable of the soundness level of a bank. It is known that the Sig value of the CAR variable is 0.007 <0.05, so the CAR variable has a significant effect on bank classification or bank soundness level variables, at a significance level of 5%. 2) The coefficient value of the KAP variable is 0.270 which is positive. This value can be interpreted as a KAP variable that has a positive effect on the classification of a bank or the soundness level of a bank. It is known that the Sig value of the KAP variable is 0.011 <0.05, so the KAP variable has a significant effect on the classification of a bank or the soundness level of a bank, at a significance level of 5%. 3) The coefficient value of the NIM variable is 0.321, which is positive. This value can be interpreted that the NIM variable has a positive effect on the classification of a bank or the soundness level of a bank. It is known that the Sig value of the NIM variable is 0.004 <0.05, so the NIM variable has a significant effect on bank classification or the probability variable of bank soundness level, at a significance level of 5%. 4) The coefficient value of the ROA variable is 0.301, which is positive. This value can be interpreted that the ROA variable has a positive effect on the classification of a bank or the soundness level of a bank. It is known that the Sig value of the ROA variable is 0.004 <0.05, so ROA has a significant effect on bank classification or bank soundness level variables, at a significance level of 5%. 5) The coefficient value of the LDR variable is 0.090, which is positive. This value can be interpreted that the LDR variable has a positive effect on the bank's classification or the bank's soundness level variable. It is known that the Sig value of the LDR variable is 0.410 > 0.05, so LDR has no significant effect on bank classification or bank soundness variables, at a significance level of 5%.

Discussion

Effect of Capital Adequacy Ratio on Bank Soundness Level

The results of this study indicate that the Capital Adequacy Ratio (CAR) has a positive and significant effect on the level of bank soundness. The results of the regression equation show that the coefficient for this variable is positive and significant. This is in line with the theory that the higher the CAR, the higher the bank's ability to bear the risk of any risky credit/productive assets that can increase the soundness of the bank.

In this study the results were found to have a positive effect, so the amount of a bank's capital adequacy to bear the risk of bad credit affects the soundness of the bank in general. This research is supported by the results of researchers (Yulianto & Sulistyowati, 2012), namely CAR has a positive and significant effect on the level of bank soundness.

The Capital Adequacy Ratio (CAR) shows how much the bank's capital is sufficient to support its needs and the basis for assessing the prospects for continuing the bank's business. The higher the CAR, the better the bank's ability to bear the risk of any risky credit/productive assets. With high capital adequacy, banks are able to

finance operational activities and make a sizeable contribution to profitability (Suyono et al., 2020; Vina et al., 2021) and increase confidence in extending credit so as to increase the probability of a bank's soundness level. Therefore, in general, an increase in CAR will result in an increase in the soundness of the bank as well as a decrease in CAR will result in a decrease in the soundness level of the bank.

Effect of Earning Assets Quality on Bank Soundness Level

The results of this study indicate that the Quality of Earning Assets (KAP) has a positive and significant effect on the level of bank soundness. This is in line with the theory that this ratio indicates the ability of asset quality to generate net interest income (Rivai, 2016). The greater this ratio, the higher the interest income earned from productive assets managed by the bank so that it can support an increase in the soundness level of the bank. This research is supported by researchers (Haryanto & Hanna, 2014) that KAP has a positive and significant effect on the soundness of a bank.

Effect of Net Interest Margin on Bank Soundness Level

The results of this study indicate that the Net Interest Margin (NIM) has a positive and insignificant effect on the probability of a bank's soundness level. This is in line with the theory that this ratio shows the ability of earning assets to generate net interest income (Rivai, 2016). This research is supported by researcher Wahyudi (2016) that NIM has a positive and significant effect on the soundness of a bank.

Effect of Return on Assets on Bank Soundness Level

The results of this study indicate that Return on Assets (ROA) has a positive and significant effect on the level of bank soundness. This is consistent with the theory where Return on Assets (ROA) is used to measure the ability of bank management to obtain overall profits (Dendawijaya, 2016). This ratio shows the efficiency level of asset management carried out by the bank concerned. If this ratio increases, the bank's assets have been used optimally to obtain income. The greater the Return on Assets (ROA) of a bank, the greater the level of profit that the bank achieves with large profits so that the higher the soundness level of the bank. This research is supported by research (Wahyudi, 2016) that ROA has a positive and significant influence on the soundness of a bank.

The Effect of Loan to Deposit Ratio on Bank Soundness Level

The results of this study indicate that the Loan to Deposit Ratio (LDR) has a positive and insignificant effect on the soundness of a bank. This is consistent with the theory that this ratio is used to measure the extent to which a bank is able to pay back withdrawals made by relying on credit as a source of liquidity. This research is in line with research (Wahyudi, 2016) that LDR has no significant effect on bank health.

The higher this ratio, the lower the liquidity of the bank concerned, which results in a lower probability of soundness of the bank. The LDR level shows the level of credit provided, or in other words the bank lends funds, but if this is done carefully it will not endanger bank liquidity because the amount of funds needed to finance credit is getting bigger so that if at any time the owner of the funds or in other words On the other hand, the bank is unable to return (Stevany et al., 2022) the funds borrowed from customers, causing bank liquidity to decrease, which can result in the probability of a bank's soundness decreasing, and vice versa.

CONCLUSION

Conclusion

Capital Adequacy Ratio (CAR) has a positive and significant effect on the soundness level of the bank. Earning Asset Quality (KAP) has a positive and significant effect on the soundness level of the bank. Net Interest Margin (NIM) has a positive and insignificant effect on the probability of a bank's health level. Return on Assets (ROA) has a positive and significant effect on the soundness of a bank. Loan to Deposit Ratio (LDR) has a positive and insignificant effect on the soundness of a bank.

Recommendation

The suggestions from this study are: 1) For banking companies, bank management needs to have good credit management so that the Loan to Deposit Ratio (LDR) level remains below the maximum limit required by Bank Indonesia of 85%. Because the lower the LDR, the more profitable the bank is, which means the bank is in a healthy condition. Bank management is expected to be able to increase the value of ROA, which is greater than 1.5% according to the requirements of Bank Indonesia, so as to increase the company's effectiveness in generating profits by utilizing its assets, which means the bank is in good health. Bank management is expected to be able to maintain Net Interest Margin (NIM) with a maximum limit of 2% as required by Bank Indonesia, so that the level of bank liquidity will be high so as to enable the bank to be in good health. 2) Investors or potential (Nyoto et al.,

2023) investors are advised to carry out an analysis of financial ratios, especially financial ratios related to the soundness level of the bank because the soundness level of the bank definitely affects the company's ability to create profits and convenience for customers in transactions. 3) For further researchers, it is advisable to use a sample by expanding the scope of the bank that is the object of research and increasing the research period and adding independent variables other than those already in this study such as economic factors which include inflation, interest rates, government subsidies, exports (Renaldo, Suhardjo, Andi, et al., 2023), sales (Suhardjo et al., 2023), accounting standards (Renaldo, Suhardjo, Suharti, et al., 2023), and so on which have not been considered in this research.

REFERENCES

Budisantoso, T. (2014). *Bank dan Lembaga Keuangan Lain*. Jakarta: Salemba Empat.

Chandra, T., Renaldo, N., & Putra, L. C. (2018). Stock Market Reaction towards SPECT Events using CAPM Adjusted Return. *Opción, Año 34*(Especial No.15), 338–374.

Dendawijaya, L. (2016). *Manajemen Perbankan*. Jakarta: Ghalia Indonesia.

Haryanto, M., & Hanna. (2014, September). CAMEL dan Tingkat Kesehatan Perbankan. *Jurnal Akuntansi, XVIII*(3), 350-370.

Hasibuan, M. (2015). *Dasar-dasar Perbankan*. Jakarta: Bumi Aksara.

Imamah, N. (2012). Analisis CAMEL untuk Mengukur Tingkat Kesehatan Bank PT. BPR Syariah Al Makmur Kabupaten Ponorogo Periode 2004-2008. *Profit Administrasi Bisnis, 6*(1), 70-84.

Kasmir. (2012). *Manajemen Perbankan*. Jakarta: Raja Grafindo Persada.

Kuncoro. (2012). *Manajemen Perbankan Teori dan Aplikasi*. Jakarta: Indeks, Gramedia Grup.

Lianawati, d. (2016). Penilaian Kesehatan Bank Perkreditan Rakyat (BPR) Berdasarkan Surat Keputusan Direksi Bank Indonesia N0. 30/12/Kep/Dir Tahun 1997. *Jurnal Administrasi Bisnis (JAB), 30*(1).

Nenu, E. A., Vintilă, G., & Gherghina, Ş. C. (2018). The Impact of Capital Structure on Risk and Firm Performance: Empirical Evidence for the Bucharest Stock Exchange Listed Companies. *International Journal of Financial Studies, 6*(2), 41. https://doi.org/10.3390/ijfs6020041

Nyoto, Renaldo, N., & Effendi, I. (2023). SWOT Analysis of Economic Impact Development of Potential Kuantan Singingi Pacu Jalur Tourism Development. *The Seybold Report, 18*(02), 1342–1349. https://doi.org/10.17605/OSF.IO/T58CF

Nyoto, Renaldo, N., Karuppannan, G., Bhuiyan, A. B., & Kumarasamy, M. M. (2021). The Determinance of the Financial Behavior among Graduate Students in Indonesia. *Australian Finance & Banking Review, 5*(1), 29–42. https://doi.org/https://doi.org/10.46281/afbr.v5i1.1009

Pandia, F. (2015). *Manajemen Dana dan Kesehatan Bank*. Jakarta: Rineka Cipta.

Pemerintah, & Indonesia. (1998). Undang-undang Nomor 10 tentang Perbankan.

Purba, H. Y., & Herminto. (2015). Analisis CAMEL untuk Menilai Performance Perusahaan Perbankan (Studi pada Bank-bank Milik Pemerintah yang Go Public di BEI). *Jurnal Administrasi Bisnis (JAB), 29*(1), 86-94.

Putri, I. Y., Renaldo, N., Andi, Fransisca, L., Suhardjo, Suyono, & Erwin. (2022). Sustainability Report Disclosure and Profitability as a Strategy to Increase Future Firm Value in the Indonesian Banking Sector. *International Journal of Advanced Multidisciplinary Research and Studies, 2*(1), 100–104.

Putri, T. (2015). *Kamus Perbakan Indonesia*. Jakarta: Mitra Pelajar.

Quaye, I., Sarbah, A., Nyamaah, J. B., Aidoo, M., & Mu, Y. (2020). Intra-Industry Information Transfers and Firm Value: Evidence From Ghana's Banking Industry. *SAGE Open, 10*(4), 1–18. https://doi.org/10.1177/2158244020968087

Ramalingegowda, S. (2014). Evidence from impending bankrupt firms that long horizon institutional investors are informed about future firm value. *In Review of Accounting Studies (Vol. 19*, Issue 2). https://doi.org/10.1007/s11142-013-9271-6

Renaldo, N., & Murwaningsari, E. (2023). Does Gender Diversity Moderate the Determinant of Future Firm Value? *Review of Economics and Finance, 21*, 680–689. https://doi.org/https://doi.org/10.55365/1923.x2023.21.72

Renaldo, N., Sudarno, Suhardjo, Putri, I. Y., Suyono, Andi, & Hutahuruk, M. B. (2021). Fraud Detection at Rural Credit Banks in Riau Province until the 2019 Financial Report. *International Journal of Advanced Multidisciplinary Research and Studies, 1*(3), 51–57.

Renaldo, N., Suhardjo, Andi, Sevendy, T., & Purnama, I. (2023). Improving Accounting Students' Statistical Understanding of 2-Way ANOVA Through a Case Study of Indonesian Coffee Exports. *Reflection: Education and Pedagogical Insights, 1*(1), 13–19.

Renaldo, N., Suhardjo, Suharti, Suyono, & Sevendy, T. (2023). Development of Intermediate Accounting Teaching Materials: Financial Accounting and Accounting Standards. *Reflection: Education and Pedagogical Insights, 1*(1), 1–12.

Rivai, V. (2016). *Manajemen Lembaga Keuangan*. Jakarta: Rajawali Press.

Santoso, S. (2014). *Statistik Multivariat*. Jakarta: Elexmedia Komputindo.

Saraswati, W. (2013). *Akuntansi Biaya*. Yogyakarta: Yuma Pustaka.

Sari, Chandra, T., & Panjaitan, H. P. (2021). The Effect of Company Size and DER on ROA and Company Value in the Food and Beverage Sub Sector on the Indonesia Stock Exchange (IDX). *Journal of Applied Business and Technology, 2*(2), 134–141.

Stevany, Wati, Y., Chandra, T., & Wijaya, E. (2022). Analysis of the Influence Events on the Increase and Decrease of World Oil Prices on Abnormal Return and Trading Volume Activity in Mining Sector Companies that Registered in Indonesia Stick Exchange. *International Conference on Business Management and Accounting (ICOBIMA), 1*(1), 181–192.

Suhardjo, Renaldo, N., Sevendy, T., Rusgowanto, F. H., & Pramesti, I. G. A. A. (2023). Chi-Square and 2-Way ANOVA for Accounting Students: Analysis of Natural Gas Sales Volume by Pipeline by Customer Type in Indonesia. *Reflection: Education and Pedagogical Insights, 1*(1), 34–39.

Suyono, Sudarno, Suhardjo, Sari, Y., & Purnama, I. (2020). The influence of price to book value on capital structure and profitability of health and pharmaceutical companies in Indonesia. *Journal of Applied Business and Technology, 1*(3), 181–187.

Tiara, C. M. (2015). Analisis Faktor-faktor yang Membentuk Kinerja (CAMELS) pada Perbankan Indonesia. *Diponegoro Journal of Accounting, 4*(2), 1-12.

Vina, J., Junaedi, A. T., & Panjaitan, H. P. (2021). Determinants of Profitability and Capital Structure in KOMPAS100 Index Companies Year 2016-2020. *Journal of Applied Business and Technology, 2*(3), 233–242.

Wahyudi, A. (2016). Tingkat Kesehatan Bank dan Faktor Penentunya (Studi Pada PT. Bank Muamalat Indonesia Periode 2007-2014). *Artikel Ilmiah Brawjaya*.

Yulianto, A., & Sulistyowati, W. A. (2012, maret). Analisis CAMELS dalam Memprediksi Tingkat Kesehatan Bank yang Terdaftar di Bursa Efek Indonesia Periode Tahun 2009 – 2011. *Media Ekonomi & Teknologi Informasi, 19*(1), 35-49