

#### DETERMINING FACTORS OF DIGITAL BANKING PROFITABILITY IN INDONESIA: CASE STUDY OF BANK JAGO TBK

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#### ABSTRACT

The digital banking sector in Indonesia has experienced rapid growth, especially after the COVID-19 pandemic that accelerated the adoption of digital financial services. This study focuses on PT Bank Jago Tbk, a pioneer in digital banking, to examine the main determinants of profitability as measured by Return on Assets (ROA), with Loan to Deposit Ratio (LDR), Non-Performing Loan (NPL), and Capital Adequacy Ratio (CAR) as independent variables, with Net Interest Margin (NIM) as a mediating variable. Data analysis was conducted using Structural Equation Modeling - Partial Least Squares (SEM-PLS) based on financial data from 2018 to 2023. The results show a positive relationship between LDR and ROA, highlighting the importance of effective lending in increasing profitability. NPL shows a negative impact on ROA, emphasizing the importance of strong credit risk management to mitigate non-performing loans. Interestingly, CAR shows a complex indirect relationship with ROA, underscoring the need for efficient capital utilization to balance risk absorption and revenue generation. In addition, NIM significantly mediates the impact of these factors on ROA, underscoring its important role in optimizing bank profitability. This study provides actionable insights for PT Bank Jago Tbk to improve its financial performance by optimizing LDR, reducing NPL, and managing CAR efficiently. Recommendations include targeting the SME sector, implementing advanced credit scoring technology, and diversifying revenue streams beyond interest-based income. This study highlights the dynamic interactions of these variables, offering strategic direction for digital banks looking to thrive in a competitive market.

**Keywords:** Digital Banking, Profitability, Loan to Deposit Ratio (LDR), Non-Performing Loan (NPL), Capital Adequacy Ratio (CAR), Net Interest Margin (NIM), Structural Equation Modeling (SEM), PT Bank Jago Tbk, SME Financing, and Income Diversification.

#### INTRODUCTION

In 2020, the world, including Indonesia, was shocked by the COVID-19 pandemic. The COVID-19 pandemic has become a catalyst that accelerates digital transformation globally. Because of the strict restrictions on social interaction, people have been forced to adapt to a new, more digital lifestyle. This change has also occurred in the business sector, including banking. People have become dependent on digital banking services to meet their daily financial needs. Such as money transfers, bill payments, to investments, all of which can be done easily through mobile banking applications. Because of this, the economy is expanding and smartphone adoption rates are rising, yet many people still do not have access to banking services. Because of this, the area is perfect for the growth of digital banking.

A recent McKinsey Personal Financial Services Survey research states that around 90% of people in the region utilize digital banking, and most of them are willing to pay more for additional banking services via these digital channels. In particular, Indonesia has seen an explosion in the use of digital banking. Customers in Indonesia now routinely utilize digital banking at a rate of over 78%, up from 57% in 2017. Because of this, Indonesians are using cash less frequently and depending more digital banking. Additionally, on research from InsightsAsia states that 71% of Indonesians choose e-wallets as their preferred payment method. followed by mobile banking and cash. Research from InsightsAsia shows that 58% of digital wallet users remain loyal to Gopay. In 2020, Gojek acquired a share in Bank Jago Tbk. The GoPay wallet is owned by Gojek and Tokopedia, who also have access to a greater array of financial services due to their ownership of a portion of the bank. Users can pay for meals, transport, and other services with the GoPay app. GoJek customers can currently open a bank account through Bank Jago, which enables them to handle their finances. save money, earn interest, and perhaps apply for loans.

According to Otoritas Jasa Keuangan (OJK), a digital bank is a bank has carried out а digital that transformation into a fully digital bank. In 2020-2021, many mini banks or banks with core capital of IDR 1-5 trillion changed their business to become digital banks. The conventional business model that focuses on physical branches is starting to be abandoned and replaced by a more efficient and flexible digital business model. Digital banks offer various innovative features, such as opening accounts online, chatbots, and integration with various digital payment platforms. According to Otoritas Jasa Keuangan (OJK), there are currently 14 digital banks in Indonesia. One of the mini banks that has transformed into a digital bank is PT Bank Jago Tbk. PT Bank Jago Tbk offers all-digital services ranging from account opening to access and management of deposits.

# METHODS

The type of this research is explanatory with a quantitative approach. Several research goals were established in order to address the existing issue and analyze it. To bolster the analysis, secondary data and literature are gathered. Literature books and scientific journals will be used to develop the literature method, and the company's annual report, financial statements, and other documents relevant to the research variables in the thesis will be used to generate secondary data. The data collection methods in this study are secondary data, operational variables, and literature methods. Analyzing the PT Bank Jago's annual report, financial statements. and other documents pertaining to the research variables in the thesis-such as the loan to deposit ratio, non-performing loan, capital adequacy ratio, net interest margin, and return on documentation asset—is how the method is carried out.

Following data collection, SEM-PLS will be used to examine quantitative data obtained from the company's annual report. A proposed approach based on the factors used will be added to the data analysis results. The study's conclusion will address the key elements that determine digital banks' profitability as well as how banks should incorporate these recommendations into their future competitive strategies. Plans that are short, medium, or long-term can all use the business strategy formulation execution plan.

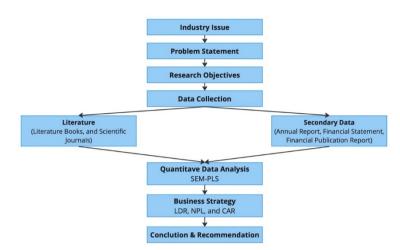


Figure 1. Research Design

	Table 1.	Operational	Variable
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No	Variable	Definition	Indicator	Scale
Dep	endent Variable			
1	Return on Assets	According to Kasmir (2016:201), it is a ratio that shows the return on the amount of assets used in the company.	$ROA \text{ Formula:} \\ ROA = \frac{\text{Net Profit}}{\text{Total Asset}} \ge 100$	Ratio
Inde	ependent Variab			
1	Loan to Deposit Ratio	According to Kasmir (2016:225) it is a composition of the comparative amount between the total credit provided and the total third-party funds.	LDR Formula: LDR = total amount of loans Total amount of deposits x 100	Ratio
2	Non- Performing Loan	According to Kasmir (2018), NPL is a credit in which there are obstacles caused by the banking party in analyzing and the customer who intentionally or unintentionally does not make payments in his obligations.	NPL Formula: NPL = $\frac{\text{Total NPL}}{\text{Total Credit}} \times 100$	Ratio
3	Capital Adequacy Ratio	According to Kasmir (2016:46), CAR is a comparison of the ratio between the capital ratio to Risk Weighted Assets and in accordance with government regulations.	CAR Formula: $CAR = \frac{Total Capital}{RWA} \times 100$	Ratio
Inte	rvening Variabl			
1	Net Interest Margin	According to Kasmir (2017), the ratio used to measure the level of profitability is the level of bank effectiveness between net interest	NIM Formula: NIM = $\frac{\text{Net Profit}}{\text{Total Revenue}} \times 100$	Ratio

income compared to avera productive assets.	e
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### **RESULT AND DISCUSSION Descriptive Statistical Analysis**

This research presents a descriptive statistical analysis consisting of mean, maximum, minimum and standard deviation values, which will explain the dependent variable, independent variable, mediating or intervening variable of the sample in this study. Using the PT Bank Jago Tbk sample in the first quarter of 2018 to the fourth quarter of 2023. The following are the results of descriptive statistical testing:

Name	LDR	NPL	CAR	ROA	NIM
Mean	101,22	3,03	118,06	-2,99	6,56
Median	110,61	1,82	91,38	-1,78	5,04
Scale min	47,54	0,00	15,47	-15,89	2,05
Scale max	157,69	8,87	538,01	0,77	11,08
Observed min	47,54	0,00	15,47	-15,89	2,05
Observed max	157,69	8,87	538,01	0,77	11,08
Standard deviation	31,400	3,040	118,120	4,250	3,020
Excess kurtosis	-1,179	-0,872	4,710	1,717	-1,477
Skewness	0,066	0,880	2,067	-1,496	0,304
Cramér-von Mises p value	0.000	0.000	0.000	0.000	0.000

Table 2. Descriptive Statistics

Source: Processed data (2024)

The dependent variable, namely Return on Asset, has a maximum value of 0.77 and a minimum value of -15.89. Where PT Bank Jago Tbk owns the maximum value in the first quarter (Q1) of 2022 and the minimum ROA value owned by PT Bank Jago Tbk in the sixth quarter (Q4) of 2019. This study's mean profitability (ROA) value is -2.99 with a standard deviation value of 4.250. From the test results, it can be seen that the mean profitability is smaller than the standard deviation. It can be interpreted that the data is heterogeneous or varied. Independent Variable X1, namely the Loan to Deposit Ratio which is calculated has a maximum value of 157.69 and a minimum value of 47.54. The maximum value owned by PT Bank Jago Tbk in the third quarter (Q3) of 2020 and the minimum value in the sixth quarter (Q4) of 2019.

The independent variable X2, namely Non-Performing Loan, has a maximum value of 8.87 and a minimum value of 0. Where the maximum value is owned by PT Bank Jago Tbk in the third quarter (Q3) of 2018 and the minimum value is owned by PT Bank Jago Tbk in the fourth quarter (Q4) of 2020 to the second quarter (O2) of 2021. In this study, the mean NPL value is 3.03 with a standard deviation value of 3.04. From the results of descriptive statistical testing, it can be seen that the mean value of NPL is smaller than the standard deviation value. This means that the data is heterogeneous or diverse. In the Independent variable X3, namely the Capital Adequacy Ratio, it has a maximum value of 538.01 with a minimum value of 15.47. The maximum value owned by PT Bank Jago Tbk in the first quarter (Q1) of 2021. While the minimum value of PT Bank Jago Tbk in the third quarter (O3) of 2019. The mean CAR value is 118.06 with a standard deviation value of 118.12. From the calculation above, it can be seen that the mean value is smaller than the standard deviation. This means that the data sample is heterogeneous or varied.

In the mediating or intervening variable (Z), namely Interest proxied by Net Interest Margin has a maximum value of 11.08 with a minimum value of 2.05. The maximum value obtained by PT Bank Jago Tbk in the first quarter (Q1) of 2022. Meanwhile, obtained by PT Bank Jago Tbk in the sixth quarter (Q4) of 20219. The mean value of Net Interest Margin at PT Bank Jago Tbk is 6.56 with a standard deviation value of 3.020. This shows that the mean value is greater than the standard deviation value, which means that the NIM data is homogeneous or grouped.

## Structural Equation (Inner Model) R-Square Test (R<sup>2</sup> or Coefficient of Determination)

Test  $(\mathbb{R}^2)$  The coefficient of determination is used to calculate how much influence there is between the independent variable and the dependent variable. The value of the coefficient of determination or R Square ranges from 0-1. If the value of the coefficient of determination approaches 1, then it can be said that the relationship between the independent variable and the dependent variable is getting stronger, while if the value of the coefficient of determination approaches 0, then it can be said that the relationship between the independent variable and the dependent variable is getting weaker. According to Chin (1998), the qualitative interpretation value of R square is 0.19 (low influence), 0.33 (moderate influence), and 0.66 (high influence).

	R-square	R-square adjusted
NIM	0,440	0,422
ROA	0,758	0,747

**Table 3.** Results of R2 Coefficient Determination Test

Source: Processed data (2024)

Adjusted **R-Square** only measures R-Square with significant independent variables. The R-Square Adjusted value (Coefficient of Determination) in this study is 0.440 or 42.2%, and the R-Square value is 0.440 or 44% for Net Interest Margin. While for Return on Assets (Y), the R-Square Adjusted value (Coefficient of Determination) in this study is 0.747 or 74.7%, and the R-Square value is 0.758 or 75.8%. It can be concluded that the variables Loan to Deposit Ratio (X1), Non-Performing Loan (X2), and Capital Adequacy Ratio (X3) have an influence on Net Interest Margin (Z), and Return on Assets (Y). This means that the ability of the independent variables to explain the variance of the dependent variable is 75.8% and the mediation variable is 44%. It is concluded that the results of the R-Square test value occupy the "moderate influence" level for the mediation variable because it has a value above 0.33 (Chin, 1998). The results of the R-Square test value of the dependent variable (ROA) occupy the "high influence" level because it has a value above 0.66 (Chin, 1998). Thus, 25.2% of the variance of the dependent variable (ROA) can be explained by other factors.

#### **Predictive Relevance (Q<sup>2</sup>)**

Predictive Relevance  $(Q^2)$  is a metric used in Partial Least Squares Structural Equation Modeling (SEM-PLS) modeling to measure the predictive ability of a model. This test aims to evaluate whether the model has predictive ability against endogenous (dependent) variables. The Q<sup>2</sup> value can be said to be small with a score of 0.02, the value is said to be medium with a score of 0.15, while the ai value is said to be large with a score of 0.35.

**Table 4.** Results of Predictive Relevance (Q2)

		PLS-	PLS-		
	Q <sup>2</sup> predict	SEM_RMSE	SEM_MAE	LM_RMSE	LM_MAE
NIM	0,401	2,335	1,905	2,335	1,905
ROA	0,317	3,512	2,273	3,512	2,273
Source: Processed data (2024)					

Based on Table 4, it can be concluded that the dependent variable (ROA) and the mediating or intervening variable (NIM) have predictive relevance. The dependent variable (ROA) has a value above 0.317 or occupies the "medium" level. While the mediating/intervening variable (NIM) has a value of 0.401 or occupies the "large" level.

#### **Goodness of Fit (GoF)**

The Goodness of Fit (GoF) assessment is used to determine and evaluate a model that has a good fit with the data obtained by providing simple measurements. Goodness of Fit (GoF) can also test the hypothesis used to validate the combined performance of the measurement model and the structural model. In the model fit test, a score of 0.1 is said to be small, a score of 0.25 is said to be moderate, and a score of 0.36 is said to be large.

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_	CAR	NIM	NPL	ROA	LDR
CAR		0,145		0,075	
NIM				1,614	
NPL		0,069		0,954	
ROA					
LDR		0,347		0,165	

**Table 5.** Results of Goodness of Fit (GoF)

Source: Processed data (2024)

Capital Adequacy Ratio variable with Return on Assets has a value of 0.075, and Non-Performing Loan with Net Interest Margin has a value of 0.069 does not have a good match. Meanwhile, Net Interest Margin with Return on Assets has a value of 1.614, Non-Performing Loan with Return on Assets has a value of 0.954, Capital Adequacy Ratio with Net Interest Margin has a value of 0.145 "small", and Loan to Deposit Ratio with Return on Assets has a value of 0.347 "moderate" with Net Interest Margin having a value of 0.165 "small". The largest value is Net Interest Margin with Return on Assets of 1.614 "large".

# Hypothesis Testing

	Table 6. Hy	pothesis Test	t Results (P Va	alues)	
	Original		Standard		
	sample	Sample	deviation	T statistics	Р
	(0)	mean (M)	(STDEV)	( O/STDEV )	values
LDR -> NIM	0,576	0,574	0,097	5,915	0,000
NPL -> NIM	-0,291	-0,305	0,088	3,295	0,000
CAR -> NIM	-0,366	-0,379	0,084	4,327	0,000
NIM -> ROA	0,836	0,835	0,086	9,737	0,000
LDR -> ROA	0,303	0,308	0,109	2,793	0,003
NPL -> ROA	0,739	0,743	0,078	9,436	0,000
CAR -> ROA	0,185	0,189	0,093	1,983	0,024
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**Table 6.** Hypothesis Test Results (P Values)

Source: Hypothesis Test Results (Bootstrapping)

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	Original	Sample	Standard		
	sample	mean	deviation		Р
	(O)	(M)	(STDEV)	T statistics	values
LDR -> NIM -> ROA	0,482	0,474	0,065	7,408	0,000
NPL -> NIM -> ROA	-0,244	-0,258	0,090	2,703	0,003
CAR -> NIM -> ROA	-0,306	-0,315	0,075	4,058	0,000
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**Table 7.** Hypothesis Test Results (P Values)

Source: Hypothesis Test Results (Bootstrapping)

The hypothesis test results can be said to have a significant influence if the resulting value is less than 0.05. In this study, it was found that the variables Loan to Deposit Ratio (X1), Non-Performing Loan (X2), and Capital Adequacy Ratio (X3) influence the variable Net Interest Margin (Z) and the variable Return on Assets (Y). This is explained as follows:

1. Loan to Deposit Ratio (X1) variable against Net Interest Margin (Z) has a P value of 0.000, this value indicates that 0.000 < 0.05. With an original value of 0.576. This means that Loan to Deposit Ratio (X1) variable has a positive effect on Net Interest Margin (Z) of PT Bank Jago Tbk. Thus, it can be concluded that H0 is rejected and H1 is accepted.

 Non-Performing Loan (X2) variable on Net Interest Margin (Z) has a P value of 0.000, this value indicates that 0.000 < 0.05. With an original value of -0.291. This means that the Non-Performing Loan (X2) variable has a negative effect on Net Interest Margin (Z) of PT Bank Jago Tbk. Thus, it can be concluded that H0 is rejected and H2 is accepted.

- The Capital Adequacy Ratio (X3) variable against Net Interest Margin (Z) has a P value of 0.000, this value indicates that 0.000 < 0.05. With an original value of -0.366. This means that the Capital Adequacy Ratio (X3) variable has a negative effect on the Net Interest Margin (Z) of PT Bank Jago Tbk. Thus, it can be concluded that H3 is rejected</li>
- 4. Net Interest Margin (Z) variable against Return on Assets (Y) has a P value of 0.000, this value indicates that 0.000 <0.05. With an original value of 0.836. This means that Net Interest Margin (Z) variable has a positive effect on Return on Assets (Y) of PT Bank Jago Tbk. Thus, it can be concluded that H0 is rejected and H4 is accepted.</p>
- 5. The Net Interest Margin (Z) variable is able to mediate the effect of Loan to Deposit Ratio (X1) on Return on Assets (Y). From table IV.5 it can be seen that the P value is 0.000, this value shows that 0.000 < 0.05. With an original value of 0.482. Thus, it can be concluded that H0 is rejected and H5 is accepted.
- 6. The Net Interest Margin (Z) variable is able to mediate the effect of Non-Performing Loan (X2) on Return on Assets (Y). From table IV.5 it can be seen that the P value is 0.000, this value shows that 0.000 <0.05. With an original value of -0.244. Thus, it can be concluded that H0 is rejected and H6 is accepted.
- The Net Interest Margin (Z) variable is able to mediate the effect of Capital Adequacy Ratio (X3) on Return on Asset (Y). From table IV.5 it can be seen that the P value is 0.000, this value shows that 0.000

<0.05. With an original value of -0.306, it means that the Net Interest Margin (Z) variable is able to mediate the influence of Capital Adequacy Ratio (X3) on Return on Asset (Y) but has a negative effect. Thus, it can be concluded that H7 is rejected.

- Loan to Deposit Ratio (X1) variable to Return on Asset (Y) has a P value of 0.003, this value indicates that 0.003 <0.05. With an original value of 0.303. This means that the Loan to Deposit Ratio (X1) variable has a positive effect on Return on Asset (Y) of PT Bank Jago Tbk. Thus, it can be concluded that H0 is rejected and H8 is accepted.
- 9. The Non-Performing Loan (X2) variable to Return on Asset (Y) has a P value of 0.000, this value shows that 0.000 <0.05. With an original value of 0.739. This means that the Non-Performing Loan (X2) variable has a positive effect on Return on Asset (Y) of PT Bank Jago Tbk. Thus, it can be concluded that H9 is rejected.</p>
- 10. The Capital Adequacy Ratio (X3) variable to Return on Asset (Y) has a P value of 0.024, this value indicates that 0.024 <0.05. With an original value of 0.185. This means that the Capital Adequacy Ratio (X3) variable has a positive effect on Return on Asset (Y) of PT Bank Jago Tbk. Thus, it can be concluded that H0 is rejected and H10 is accepted.

# Effect of LDR on NIM

Based on the test results in this study, it can be shown that the effect of the Loan to Deposit Ratio (X1) variable on the Net Interest Margin (Z). P Value has a significant value of 0.000 < 0.05with a positive original sample value. H0 is rejected and H1 is accepted so that it has an effect on interest income or Net Interest Margin (Z) of PT Bank Jago Tbk. This means that the higher the value of the bank's Loan to Deposit Ratio becomes a benchmark for PT Bank Jago Tbk's interest income.

# Effect of NPL on NIM

Based on the test results in this study, it can be shown that the effect of the Non-Performing Loan (X2) variable on the Net Interest Margin (Z). P Value has a significant value of 0.000 < 0.05with a negative original sample value. H0 is rejected and H2 is accepted so that it has an effect on interest income or Net Interest Income (Z) of PT Bank Jago Tbk. This means that the higher the value of Non-Performing Loan or bank credit risk is the benchmark and the smaller the interest income of PT Bank Jago Tbk.

# Effect of CAR on NIM

Based on the test results in this study, it can be shown that the effect of the Capital Adequacy Ratio (X3) variable on the Net Interest Margin (Z). P Value has a significance value of 0.000 < 0.05 but with a negative original sample value. So H3 is rejected. so that it has a negative effect on interest income or Net Interest Income (Z) of PT Bank Jago Tbk. This means that the higher the value of the Capital Adequacy Ratio or bank capital as a benchmark and the smaller the interest income of PT Bank Jago Tbk.

# Effect of NIM on ROA

Based on the test results in this study, it can be shown that the effect of the Net Interest Margin (Z) variable on Return on Assets (Y). P Value has a significance value of 0.000 < 0.05 with a positive original sample value. So H0 is rejected and H4 is accepted so that it has a positive effect on the profitability (Y) of PT Bank Jago Tbk. This means that the higher the NIM value or bank interest income as a benchmark and the greater the profitability of PT Bank Jago Tbk. The results of this study are the same as those conducted by Silaban (2017), Pinasti and Mustikawati (2018), Astohar et al. (2019), Pranowo et al. (2020) and Setyarini (2020) showing that CAR has a significant positive effect on ROA.

# NIM Mediates the Effect of LDR on ROA

Based on the test results in this study, it can be shown that the Net Interest Margin (Z) variable is able to mediate the effect of Loan to Deposit Ratio (X1) on Return on Asset (Y). P Value has a significance value of 0.000 < 0.05 with a positive original sample value. So H0 is rejected and H5 is accepted. The positive coefficient in the original sample indicates that an increase in LDR will have a positive impact on ROA through NIM, meaning that the higher the LDR that reflects effective credit distribution, the greater Net Interest Margin (NIM) that can be obtained by PT Bank Jago Tbk, which will ultimately increase profitability (ROA).

# NIM Mediates the Effect of NPL on ROA

Based on the test results in this study, it can be shown that the Net Interest Margin (Z) variable is able to mediate the effect of Non-Performing Loan (X2) on Return on Asset (Y). P Value has a significance value of 0.003 < 0.05 with a negative original sample value. So H0 is rejected and H6 is accepted. The negative coefficient in the original sample indicates that an increase in NPL tends to decrease ROA through NIM, meaning that the higher the ratio of Non-Performing Loans (NPL) owned by a bank, the lower the Net Interest Margin (NIM) that can be generated, thus negatively impacting profitability (ROA).

# NIM Mediates the Effect of CAR on ROA

Based on the test results in this study, it can be shown that the Net Interest Margin (Z) variable is able to mediate the effect of Capital Adequacy Ratio (X3) on Return on Asset (Y). P Value has a significance value of 0.000 < 0.05 with a negative original sample value, so H7 is rejected. The negative coefficient in the original sample indicates that an increase in CAR has the potential to reduce ROA through NIM, which indicates a mediation effect that is depressing or trade-off.

# Effect of LDR on ROA

Based on the test results in this study, it can be shown that the influence of the Loan to Deposit Ratio (X1) variable on Return on Assets (Y). P Value has a significance value of 0.003 < 0.05 with a positive original sample value. So H0 is rejected and H8 is accepted so that it has a positive effect on the profitability (Y) of PT Bank Jago Tbk. This means that the higher the LDR value or loans to bank deposits as a benchmark and the greater the profitability of PT Bank Jago Tbk.

# Effect of NPL on ROA

Based on the test results in this study, it can be shown that the influence of the Non-Performing Loan (X2) variable on Return on Assets (Y). P Value has a significance value of 0.000 < 0.05 with a positive original sample value. So H9 is rejected. So that it has a positive effect on the profitability (Y) of PT Bank Jago Tbk. The positive coefficient in the original sample shows that the increase in NPL is actually positively correlated with ROA in this context, which could mean that even though there are non-performing loans, the bank is still able to maintain or increase its profitability. This unusual result may reflect an effective management strategy in dealing with non-performing loans or an adequate provision policy, so that the negative impact of NPL can be minimized on bank profitability.

# Effect of CAR on ROA

Based on the test results in this study, it can be shown that the effect of the Capital Adequacy Ratio (X3) variable on Return on Assets (Y). P Value has a significance value of 0.024 < 0.05 with a positive original sample value. So H0 is rejected and H10 is accepted so that it has a positive effect on the profitability (Y) of PT Bank Jago Tbk. This means that the higher the CAR value or bank capital as a benchmark and the greater the profitability of PT Bank Jago Tbk.

#### Business Solution Business Issue

The profitability of PT Bank Jago Tbk as measured by Return on Assets (ROA) between 2018 and 2023 faces several challenges as the bank transforms into a digital bank. In 2018 and 2020, Bank Jago recorded negative ROA, reflecting losses on total assets used for operations, with its peak in 2020 when it experienced the largest loss of IDR190 billion. Although Bank Jago started to generate profits in 2021, this profitability has not been stable, and the bank's ROA is still relatively low compared to other banks. The intensive digital transformation has resulted in a significant increase in technology and operational costs, which has put pressure on profitability. In addition, the strategy to increase the customer base amidst fierce competition has also added to the burden on the company's profitability.

Several factors that influenced Bank Jago's ROA during this period included the Loan to Deposit Ratio, Non-Performing Loan, and Capital Adequacy Ratio, as well as the Net Interest Margin which acted as a mediator. A high LDR indicates a high percentage of third-party funds disbursed in the form of credit, which can drive profitability when the credit is managed well. Conversely, a high NPL indicates a high risk of nonperforming loans, which reduces net interest income and lowers ROA. CAR functions as a support for the bank's capital capacity to overcome risks, where a high CAR value can increase the company's stability and strengthen investor confidence, although it requires careful management so as not to have a negative impact on interest income.

Another significant variable in supporting Bank Jago's profitability is NIM, which measures the bank's effectiveness in managing productive assets to generate net income. A high NIM reflects the bank's ability to optimize interest income from productive thereby driving assets. increased ROA. By utilizing NIM as a mediator between LDR, NPL, and CAR against ROA, Bank Jago can manage risk and liquidity more efficiently. Efforts to improve operational efficiency and credit risk management can be a key strategy to increase ROA.

## Business Solution Loan to Deposit Ratio

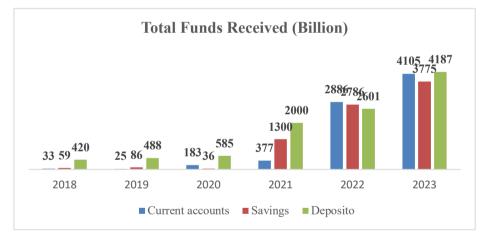


Figure 2. Data based on fund received PT Bank Jago Tbk

From the Total Funds Received graph for 2018 to 2023, it can be seen that there is significant growth in the total funds received in all three types of accounts, namely current accounts, savings, and deposits. Especially in 2023, checking and savings accounts showed a sharp increase, with checking accounts reaching 4,105 billion and savings at 4,187 billion. Meanwhile, deposits also showed strong growth, reaching 3,775 billion. This growth trend is important in the analysis of the Loan to Deposit Ratio (LDR), because it shows an increase in funds available for credit distribution, which has the potential to support further lending activities by banks in an effort to increase profitability.

	Tuble 0. eledit provided by Buik Vugo					
Credit	2018	2019	2020	2021	2022	2023
Up to 3 months	70.1 B	40 B	490 B	850 B	1,305 B	1,595 B
3 to 6 months	79.9 B	19 B	127 B	841 B	681 B	726 B
6 to 12 months	53.5 B	62 B	163 B	2,825 B	4,235 B	3,617 B
12 to 24 months	69.4 B	53 B	68 B	470 B	1,092 B	2,351 B
Over 2 years	92.7 B	108 B	58 B	381 B	2,113 B	4,726 B
Total	392 B	284 B	907 B	5,368 B	7,225 B	13,020 B

Table 8. Credit provided by Bank Jago

Source: Bank Jago's Annual Report

The data presented in the table shows the evolution of Bank Jago's credit distribution from 2018 to 2023. with details based on credit term. During this period, total credit disbursed showed a significant increase from 365 billion in 2018 to 12.591 billion in 2023. The largest growth was seen in long-term credit (more than 2 years), which increased from 92.7 billion to 4.611 billion. This trend indicates a shift in Bank Jago's strategy in increasing longterm credit distribution, which generally has more manageable risks and can support an increase in the Loan to Deposit Ratio (LDR) by providing stable and sustainable productive assets over a longer period. The increase in LDR through this long-term credit expansion reflects a stronger financial position and more diverse sources of income for the bank. The following are business solutions to increase the Loan to Deposit Ratio.

1. Collaborating with Various Parties

In order to increase the Loan to Deposit Ratio (LDR) at Bank Jago, one strategic solution that can be implemented is through a partnership program with companies to provide Payroll Banking services. Payroll Banking allows Bank Jago to become the main choice as a provider of salary accounts for company employees, both in the private and education sectors. By establishing payroll cooperation, Bank Jago can attract stable Third Party Funds (TPF), which are also low-cost because they are based on Current Account and Savings Account (CASA). This will help increase the CASA balance, which is more profitable compared to time deposits that have high interest rates.

This Payroll Banking program can also be expanded by offering various additional benefits for employees who choose Bank Jago as their main account to receive their salaries. These benefits can include competitive savings interest rates, cashback on certain transactions, and access to digital financial such management features as spending analysis, auto-save, and saving pockets that suit employee needs. In addition to increasing employee convenience and trust in Bank Jago, this program also encourages employees to actively use their accounts in various daily transactions, which in turn will increase CASA balances and strengthen LDR Bank Jago's sustainably.

Bank Jago can also develop exclusive partnerships with e-commerce, and other parties or platforms to offer CASA account programs that provide benefits such as discounts or cashback when making transactions on the platform. Such as discounts or cashback when buying certain foods or certain events if using Bank Jago. By utilizing the potential of this collaboration, Bank Jago can build a loyal customer base from among employees of partner companies, expand its network of digital service users, and reduce dependence on time deposits. This solution not only supports stable TPF growth, but also gives Bank Jago a competitive advantage in attracting low-cost funds, which is an important element to LDR and increase optimize profitability in the increasingly competitive era of digital banking.

2. Rewards and Micro Savings with Gamification Mechanisms

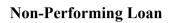
To encourage customers to actively use their accounts, Bank Jago can implement a frequency-based reward program. Through this program, customers who frequently make transactions, whether payments, transfers, or purchases through Bank Jago accounts, will get reward points. These points can be exchanged for various prizes, such as shopping discounts certain vouchers. at merchants, or other banking products. This program not only attracts new but also retains old customers customers to be more active in making transactions, thereby increasing the CASA balance steadily. In this way, Bank Jago can increase the use of active accounts, which not only contributes to TPF growth but also strengthens customer loyalty.

In an effort to attract millennials and Gen Z, Bank Jago can develop microsavings products with an interactive gamification mechanism. In this scheme, customers can take part in weekly or monthly savings challenges, where they will get badges or points every time they reach a predetermined savings target. These badges and points can be collected and exchanged for prizes or other incentives, creating fun and challenging savings а experience. This gamification program makes saving activities more interesting, especially for the younger segment who tend to like dynamic digital interactions. Thus, Bank Jago can increase CASA balances sustainably from customer segments that have the potential to save in small but consistent amounts.

3. Providing Loans to SMEs or Projects Bank Jago currently provides more loans for a term of less than 2 years. As much as 30% of Bank Jago's total loans are for loans with a term of less than 1 year. Most likely this is paylater credit. This credit only provides small interest benefits and a short or unsustainable term. Bank Jago can offer long-term loans with competitive interest rates for SMEs. This loan can be tailored for the purchase of long-term assets such as equipment, property, or renovations, which have a repayment period of more than one year. By providing long-term loans, Bank Jago not only meets the financial needs of SMEs but also ensures a more stable and sustainable interest return that supports the increase in LDR.

Bank Jago can introduce project credit products aimed at investing in large or sustainable projects that require long-term financing. This product can be targeted at sectors that promise long-term growth such as infrastructure, renewable energy, and technology. Bank Jago can provide financing with flexible terms, such as a grace period where clients only pay interest without reducing the principal for the first few years. This will attract companies that invest in long-term projects and take longer to start getting a return on investment. Bank Jago can collaborate with financial

institutions or non-bank institutions to offer syndicated loans or joint loans. This collaboration allows Bank Jago to share credit risk and expand its capacity to provide larger and longerterm loans to SMEs or projects. Bank Jago not only strengthens its loan portfolio but also enhances Bank Jago's position as a financial partner that can support large projects in various sectors.



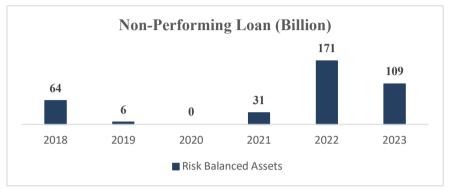


Figure 3. Data based on non-performing loan PT Bank Jago Tbk

1. Implementation of Stricter Credit Risk Assessment and Diversification of Credit Portfolio

Bank Jago needs to tighten its credit assessment process by introducing a in-depth risk more assessment method, using historical data and economic projections to map out potential riskier borrowers. This step can include the use of machine learning-based credit scores that analyze borrower behavior patterns and economic data to predict the likelihood of default. This in-depth analysis can help banks filter quality customers and avoid customers who are high risk to reduce the potential for NPL.

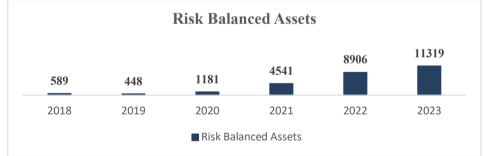
To minimize the impact of NPL, Bank Jago can allocate its credit portfolio to sectors that have different risk profiles. By spreading credit to more stable and growing sectors such as technology and healthcare, the bank is less dependent on one type or segment of credit. This diversification allows the bank to spread risk and keep NPLs under control, so that the cost of loss provisions can be suppressed, and the remaining capital can be allocated to more productive investment opportunities, supporting increased ROA.

2. Credit Restructuring for Debtors **Experiencing Payment Difficulties** Bank Jago can identify debtors experiencing difficulties through proactive monitoring of their credit performance. For debtors who are in temporary difficulties but have the potential to recover, the bank can offer credit restructuring, which may include extending the tenor. temporarily reducing the interest rate, or rearranging the payment schedule. This step allows debtors to continue making payments according to their ability without default, so that the bank can reduce the number of loans that fall into the NPL category.

After the restructuring is carried out, it is important for the bank to monitor these debtors more closely to ensure that they are back on track with normal payments. This monitoring system can be technology-based and sends alerts when debtors start to show signs of difficulty again. By proactively managing NPLs through restructuring, banks can maintain cash flow stability and reduce loss provision costs, which ultimately support ROA growth.

3. Strengthening the Credit Collection and Recovery Process with the Support of Modern Technology Bank Jago can strengthen its collection bv using team а technology-based collection system, such as payment reminder automation. more efficient collection intervention scheduling, and real-time payment status tracking. This allows the bank to make more timely collections, which can reduce the NPL rate and maintain stable interest income.

By implementing predictive analytics, Bank Jago can identify potential NPLs earlier by studying the payment patterns and financial conditions of debtors in real-time. Thus, the credit recovery team can take preventive steps before the credit becomes bad, such as offering restructuring options proactive conducting or communication with debtors. This will help reduce NPLs and reduce losses due to non-performing loans. For loans that are already in the NPL category, the bank can adopt an effective asset recovery strategy, such as asset sales or faster and more efficient asset settlement. This approach allows the bank to accelerate capital recovery that can be allocated to other investments. thereby increasing liquidity and strengthening profitability.



# **Capital Adequacy Ratio**

Figure 4. Data based on risk balanced assets PT Bank Jago Tbk

1. Optimizing Credit Distribution for Companies and SMEs

Jago Bank can increase the effectiveness of credit distribution by allocating capital to credit products aimed at companies and SMEs. This strategy aims to facilitate long-term economic growth and stability by supporting sectors that have substantial and sustainable growth potential. As a first step, Bank Jago

can identify industries that have low risk but offer high profit margins, such as technology, healthcare, and renewable energy. This approach allows the bank to develop credit products tailored to the specific needs of these industries, such as equipment financing, working capital loans, or infrastructure project financing. To reduce dependence on short-term loans that generally only provide interest benefits for a period of 3-12 months, Bank Jago must explore providing medium to long-term loans. This type of credit not only stabilizes the bank's interest income stream but also strengthens relationships with corporate and SME clients who need financial support for long-term expansion or innovation. Bank Jago offer attractive financing can packages with competitive interest rates, grace periods, and flexible payment schedules, designed to maximize the growth potential of and client companies. **SMEs** Implementing this strategy will require in-depth risk analysis and ongoing monitoring, but the results can improve the sustainability and quality of the bank's credit portfolio, while increasing overall ROA.

2. Asset and Income Diversification To reduce dependence on interest income from short-term loans. Bank Jago must implement a strategy of asset and income diversification involving investment in various financial instruments that offer growth potential and manageable risk. As a first step, the bank can increase its capital allocation to purchase highrated bonds from the government and corporations that offer stable fixed income. This approach not only provides investment security but also regular income that can help offset fluctuations in interest income.

The bank can also increase noninterest income by developing new products and services that focus on innovation and technology. Investment in the technology sector, either through funding innovative startups or through forming strategic partnerships, can open up new revenue streams and accelerate the bank's digital transformation. This initiative not only broadens the bank's revenue base but also positions it to take advantage of technology-driven economic growth. By implementing this diversification strategy, Bank Jago will be able to strengthen its financial resilience and increase its capacity to generate stable and diversified income.

3. Strengthening Capital Structure To support the expansion and diversification, Bank Jago needs to increase its capital. This can be done through the issuance of new shares or subordinated instruments that strengthen Tier 1 and Tier 2 capital. This step will allow the bank to not only meet stricter CAR regulations but also provide more room for business expansion. In addition, effective capital management must be carried out with a sustainable strategy, including adequate risk management to monitor and manage risks arising from expansion.

# Implementation Plan & JustificationStep 1: Financial PerformanceAnalysis and Capital Evaluation

The following is a detailed explanation of the steps to be taken at this stage:

Action	Description
Data Collection	The finance team will collect all relevant financial data, including income
of Financial	statements, balance sheets, cash flow statements, and other operational data
Metrics	related to LDR, NPL, and CAR. The goal is to obtain a comprehensive picture of
	the bank's financial condition.

Table 9. Detailed Explanation of Action Steps 1

Identification of	The team will identify key performance indicators that most affect LDR, NPL,
Key Performance	and CAR. These factors include operating expenses, non-performing loan ratio,
Indicators (KPIs)	and deposit-to-loan ratio. This is important to determine the focus areas for
	financial improvement.
Historical Trend	The team will analyze historical trends in financial performance to understand
Analysis	the growth and decline patterns in LDR, NPL, and CAR indicators. This analysis
	will help in determining the factors that caused changes in the past.
Benchmarking	This analysis also includes a comparison of Bank Jago's performance with
with Industry	industry standards or similar banks. This comparison provides a better context
Standards	regarding the bank's position in the banking industry.
Assessment of	Based on the initial analysis, the team will evaluate the capital requirements to
Capital Adequacy	achieve the desired CAR target. This includes assessing how much additional
Needs	capital is needed to manage risks and support business growth.
Preparation of	The results of this analysis will be summarized in a report that includes key
Financial	findings, trends, and initial recommendations on areas for improvement to
Performance	achieve optimal LDR, NPL, and CAR targets.
Report	

This stage is a crucial initial step in the Bank Jago financial performance improvement project, because it will be the basis for formulating further strategies and action plans to strengthen the bank's capital position and financial stability.

# **Step 2: Credit Portfolio Restructuring and Product Development for SMEs**

The following are details of the steps taken at this stage:

Table 10. Detailed Explanation of Action Steps 2				
Action	Description			
Assessment of	The risk and credit management team will evaluate the composition of the			
Current Credit	existing credit portfolio to identify sectors that have high risk and less			
Portfolio	profitable performance. This analysis aims to determine credit areas that			
Composition	need to be optimized or shifted to more stable sectors, such as SMEs.			
Segmentation and	The team will conduct market segmentation to identify SME segments with			
Identification of SME	high growth potential and relatively low risk. This includes analysis of			
Opportunities	various SME industries, such as trading, small manufacturing, and services,			
	which demonstrate good stability and credit capacity.			
Design of	Based on the segmentation results, the product team will design credit			
Customized Loan	products that suit the needs of SMEs, such as working capital loans with			
Products for SMEs	flexible tenors, loans with competitive interest rates, or micro-credit products			
	that can be accessed with minimal requirements.			
Implementation of	To better manage credit risk, the team will implement a risk-based pricing			
Risk-Based Pricing	strategy, where interest rates are adjusted based on the risk profile of a			
Strategy	particular SME. This step allows the bank to offer competitive credit while			
	maintaining a balance of risk.			
Establishment of	The bank will provide support and training programs for SME debtors to			
Credit Support and	help them understand financial management and credit obligations. This aims			
Training Programs	to improve SMEs' repayment capacity and reduce the possibility of non-			
for SMEs	performing loans.			
Pilot Testing and	Prior to full launch, the SME credit product will be tested on a small scale to			
Adjustment of SME	assess market response and the effectiveness of the product in reducing NPL.			
Loan Products	Feedback from this trial will be used to adjust product features before full-			
	scale implementation.			

#### **Table 10.** Detailed Explanation of Action Steps 2

Source: Processed data (2024)

This restructuring phase aims to create a more balanced credit portfolio, reduce NPL risk, and increase SME access to financing that suits their needs. With this approach, Bank Jago can increase profitability and financial stability, while strengthening relationships with the SME segment which is an important part of the economy.

#### Step 3: Implementation of AI-Based Credit Scoring Technology

The following are details of the steps that will be taken at this stage:

Table 11. Detailed Explanation of Action Steps 5				
Action	Description			
Data Collection and	The IT and risk management teams will collect historical customer data that			
Preprocessing	includes demographic data, payment behavior, financial transactions, and other			
	factors relevant to credit scoring. This data will then be processed and cleaned			
	to ensure the quality and accuracy of the AI model.			
Development of AI	The development team will work with data experts to build an AI model			
Model for Credit	specifically designed for credit scoring. This model will use machine learning			
Scoring	algorithms to identify risk patterns and classify customers based on their risk			
	profile.			
Testing and Validation	Once the AI model is developed, it will be rigorously tested using historical			
of AI Model	data to measure its accuracy. The team will validate by comparing the model's			
	predictions with actual results to ensure the reliability of the credit scores			
	generated by the AI model.			
Integration with	The validated AI model will be integrated into Bank Jago's existing credit			
Existing Credit	system. This will enable an automated credit scoring process, where credit score			
Systems	results are immediately available to credit officers when evaluating loan			
	applications.			
Training for Credit	The technology team will train credit officers and risk management on how to			
Officers on AI Usage	use AI-based credit scoring results and understand model interpretation. This			
	training aims to enable staff to understand the effective use of AI in credit			
	decision making.			
Monitoring and	After implementation, the performance of the AI model will be monitored			
Continuous	continuously. The data team will make regular updates to the model to ensure			
Improvement	that it remains accurate as data and market behavior change. These			
	improvements are made based on monitoring results and feedback from system			
	users.			

 Table 11. Detailed Explanation of Action Steps 3

Source: Processed data (2024)

The implementation of AI-based credit scoring technology is expected to accelerate the credit approval process, reduce errors in risk assessment, and reduce NPL levels by identifying potential debtors who have high potential to fulfill their obligations. By automating the credit process, Bank Jago can improve operational efficiency and provide a better experience for customers.

#### Step 4: Preparation of CASA and Payroll Banking Improvement Programs

The following are the details of the steps taken at this stage:

Action	Description			
Market Analysis and	The marketing and corporate relations team will conduct a market analysis to			
Identification of	identify potential companies that can be partners in the Payroll Banking			
Potential Payroll	program. Focus will be given to companies with a large number of employees			
Partners	or good financial stability to increase the potential for low-cost funds.			

Table 12. Detailed Explanation of Action Steps 4

Design of CASA and	Based on the analysis results, the product team will design special features for					
Payroll Banking	Payroll Banking products that are attractive to employees, such as free					
Product Features	administration fees, competitive savings interest rates, debit card facilities,					
	and easy access through the Bank Jago digital application.					
Development of	The marketing team will develop incentive programs that encourage an					
Incentive Programs	increase in CASA balances, such as lottery programs, cashback, or additional					
for CASA Growth	interest for Payroll Banking customers who maintain their balances for a					
	certain period of time. This aims to increase customer loyalty and keep low-					
	cost funds high.					
Collaboration with	The corporate relations team will work closely with the partner company's					
HR Departments of	HR division to streamline the employee onboarding process to the Payroll					
Partner Companies	Banking program. This collaboration will include automated payroll system					
	integration and employee education sessions on the benefits of the program.					
Implementation of	To increase awareness, the digital marketing team will run an online					
Digital Campaigns to	campaign highlighting the benefits of CASA and Payroll Banking products.					
Attract CASA	This campaign is carried out through social media, email, and digital					
Accounts	advertising targeted at the employee market segment of partner companies.					
Monitoring and	After implementation, the finance and marketing teams will periodically					
Analysis of CASA	monitor the performance of the CASA and Payroll Banking programs. This					
and Payroll Program	analysis includes evaluating the growth of low-cost funds, the effectiveness of					
Performance	incentives, and customer retention rates, to ensure the program is running					
	according to target.					

**Step 5: Resource Allocation for Non-Interest Investment Diversification**  The following are details of the steps to be taken at this stage:

Table 13. Detailed Explanation of Action Steps 5					
Action	Description				
Identification of Non-	The investment and financial management team will identify investment				
Interest Revenue	opportunities that can generate non-interest income, such as investments				
Opportunities	in government bonds, capital market instruments, and fee-based assets				
	such as financial management services and bancassurance.				
Risk Assessment and	The risk team will conduct a risk assessment of non-interest investment				
Return Analysis for	options to ensure that they are in line with the bank's risk tolerance. This				
Potential Investments	analysis includes potential returns, asset stability, and the impact on the				
	bank's overall risk profile.				
Capital Allocation	Based on the results of the risk and return analysis, the finance team will				
Planning	prepare a capital allocation plan for non-interest investments. This				
	involves a proportional distribution of capital to maximize diversification				
	without reducing core capital requirements.				
Development of Fee-	The product team will develop fee-based products, such as advisory				
Based Financial Products	services, wealth management, and bancassurance, which can provide				
	stable income without relying on credit interest. These products will be				
	tailored to attract customer segments with more complex financial				
	profiles.				
Collaboration with Third-	The bank will collaborate with other financial institutions, such as				
Party Partners for Non-	insurance companies or asset management, to expand its fee-based				
Interest Income	product portfolio. This collaboration will allow Bank Jago to offer				
	additional products that are relevant to customer needs without requiring				
	large capital investments.				
Monitoring and	The finance team will monitor the performance of non-interest				
Performance Review of	investments on a regular basis to ensure positive contributions to the				
Non-Interest Investments	bank's revenue. This evaluation includes analysis of return on				
	investment, impact on liquidity, and adjustment of capital allocation if				
	necessary to maximize returns.				

# **Table 13.** Detailed Explanation of Action Steps 5

By implementing a resource allocation strategy for non-interest investment diversification, Bank Jago is expected to strengthen a more stable and resilient income structure to changes in interest rates. This strategy also allows the bank to develop new business lines, increase profitability, and meet customer needs through various fee-based products. This diversification plays an important role in increasing ROA (Return on Assets) and creating a more sustainable income base.

#### Step 6: Optimization of the Collection and Recovery Process of Problematic Credit

The following are details of the steps to be taken at this stage:

Segmentation of Problematic Loans Based on Risk LevelThe credit team will segment non-performing loans based on the level of risk and the condition of the debtor. This segmentation helps the bank determine the most appropriate collection approach, such as prioritizing debtors with high risk and low recovery potential.Development of Tailored Collection StrategiesBased on risk segmentation, the collection team will develop a customized collection strategy for each segment. For example, medium-risk debtors may be given restructuring options, while high-risk debtors will be prioritized for a more intensive collection process.Utilization of Automated Collection SystemsThe bank will implement an automated billing system that sends periodic payment reminders via SMS, email, or app notifications. This system is designed to increase early collection rates and reduce late payments through efficient automated reminders.Enhancement of Recovery Team's TrainingThe recovery team will be given additional training on negotiation techniques, conflict management, and communication skills to handle debtors with greater professionalism. This is important to ensure that the recovery process runs effectively without damaging the relationship with the customer.Collaboration with External Collection AgenciesFor debtors with very high risk non-performing loans, Bank Jago will work with third parties, such as external collection agencies, to accelerate the recovery process and optimize results. This collaboration can also help reduce internal workloads.	A ation	Description			
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Recovery Team's Trainingconflict management, and communication skills to handle debtors with greater professionalism. This is important to ensure that the recovery process runs effectively without damaging the relationship with the customer.Collaboration with External Collection AgenciesFor debtors with very high risk non-performing loans, Bank Jago will work with third parties, such as external collection agencies, to accelerate the recovery process and optimize results. This collaboration can also help reduce internal workloads.	-	efficient automated reminders.			
Trainingprofessionalism. This is important to ensure that the recovery process runs effectively without damaging the relationship with the customer.Collaboration with External Collection AgenciesFor debtors with very high risk non-performing loans, Bank Jago will work with third parties, such as external collection agencies, to accelerate the recovery process and optimize results. This collaboration can also help reduce internal workloads.	Enhancement of	The recovery team will be given additional training on negotiation techniques,			
effectively without damaging the relationship with the customer.Collaboration with External Collection AgenciesFor debtors with very high risk non-performing loans, Bank Jago will work with third parties, such as external collection agencies, to accelerate the recovery process and optimize results. This collaboration can also help reduce internal workloads.	Recovery Team's	conflict management, and communication skills to handle debtors with greater			
Collaboration with External Collection AgenciesFor debtors with very high risk non-performing loans, Bank Jago will work with third parties, such as external collection agencies, to accelerate the recovery process and optimize results. This collaboration can also help reduce internal workloads.	Training	professionalism. This is important to ensure that the recovery process runs			
External Collection Agencieswith third parties, such as external collection agencies, to accelerate the recovery process and optimize results. This collaboration can also help reduce internal workloads.		effectively without damaging the relationship with the customer.			
Agencies recovery process and optimize results. This collaboration can also help reduce internal workloads.	Collaboration with	For debtors with very high risk non-performing loans, Bank Jago will work			
internal workloads.	External Collection	with third parties, such as external collection agencies, to accelerate the			
	Agencies	recovery process and optimize results. This collaboration can also help reduce			
Manitarian and The finance and side term will are due to evaluate manitarian of the effective area	_	internal workloads.			
I ne finance and risk team will conduct regular monitoring of the effectiveness	Monitoring and	The finance and risk team will conduct regular monitoring of the effectiveness			
Evaluation of of the collection and recovery process. This evaluation includes analysis of team	Evaluation of	of the collection and recovery process. This evaluation includes analysis of team			
Collection performance, recovery success rates, and adjustments to strategies if necessary	Collection	performance, recovery success rates, and adjustments to strategies if necessary			
Effectiveness to improve results.	Effectiveness	to improve results.			

 Table 14. Detailed Explanation of Action Steps 6

Source: Processed data (2024)

Optimization of the collection process and recovery of non-performing loans is expected to reduce the NPL ratio and improve the quality of Bank Jago's credit portfolio. With a more systematic collection process and the use of technology, Bank Jago can strengthen cash flow from credit, reduce provisioning costs, and ultimately support sustainable profitability growth.

#### Step 7: Integrated Risk Management Policy Development

The following are details of the steps to be taken at this stage:

Table 15. Detailed Explanation of Action Steps /				
Action	Description			
Assessment of Existing Risk	The risk management team will review and evaluate existing risk management			
Management Practices	practices at Bank Jago. This evaluation will include identifying strengths and			
	weaknesses in managing credit, operational, liquidity, and market risks.			
Development of a	Based on the evaluation results, the team will develop an integrated risk			
Comprehensive Risk	management framework. This framework will include aligned approaches and			
Management Framework	procedures for each major risk type, ensuring that risk management is carried out			
	consistently across the bank's units.			
Establishment of Risk	The risk team will establish a clear risk tolerance and appetite level for Bank			
Appetite and Tolerance Levels	Jago. These parameters will guide all operational and strategic decisions, helping			
	the bank stay within acceptable risk limits while achieving financial goals.			
Implementation of Risk	The team will develop proactive risk control measures, such as an early warning			
Control Measures and Early	system that uses Key Risk Indicators (KRIs) to detect potential problems before			
Warning Systems	the risk escalates.			
Training and Awareness	A special training program will be conducted for all relevant staff to ensure a			
Programs for Staff on Risk	good understanding of the new risk management policy. This training will include			
Management	an introduction to risk mitigation procedures and individual responsibilities in risk			
	management.			
Regular Review and Update	The risk management policy will be evaluated and updated periodically to ensure			
of Risk Management Policies	its suitability to changing internal and external conditions. This includes an			
	annual review to align the policy with developments in regulation, technology and			
	the business environment.			

Table 15. Detail	ed Explanation	of Action Step	os 7
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Bank Jago is expected to strengthen its capital position, manage various types of risks more effectively, and ensure that all operational and strategic decisions are aligned with the bank's risk profile. This strategy also supports the fulfillment of stricter regulatory requirements and helps the bank maintain long-term financial stability.

# Step8:MonitoringProgramImplementation & Risk Evaluation

The following are details of the steps to be taken at this stage:

ActionDescriptionEstablishment of Key PerformanceThe management team will set specific KPIs for each program, such as CASA growth targets, NPL reduction, or cost efficiency. These KPIs will serve as performance measures that help in objectively evaluating the success of the program.Development of Real-TimeThe bank will build a real-time monitoring dashboard that displays key data related to program performance. This dashboard allows for real-time monitoring so that teams (can immediately identify deviations and take corrective actions.)DashboardMonthly progressMonthly ProgressMonthly progress reports will be prepared to evaluate KPI achievement and discuss challenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and AdjustmentPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be deterning and adjusted or mitigation measures will be implemented as needed.ContinuousBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and Optimization		Table 10: Detailed Explanation of Action Steps 6
Key Performance Indicators (KPIs)growth targets, NPL reduction, or cost efficiency. These KPIs will serve as performance measures that help in objectively evaluating the success of the program.Development of Real-Time Monitoring DashboardThe bank will build a real-time monitoring dashboard that displays key data related to program performance. This dashboard allows for real-time monitoring so that teams can immediately identify deviations and take corrective actions.DashboardMonthly Progress Reports and Review MeetingsRisk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Action	Description
Indicators (KPIs)performance measures that help in objectively evaluating the success of the program.Development of Real-TimeThe bank will build a real-time monitoring dashboard that displays key data related to program performance. This dashboard allows for real-time monitoring so that teams can immediately identify deviations and take corrective actions.Monitoring DashboardMonthly progressMonthly ProgressMonthly progress reports will be prepared to evaluate KPI achievement and discuss challenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Establishment of	The management team will set specific KPIs for each program, such as CASA
Development of Real-TimeThe bank will build a real-time monitoring dashboard that displays key data related to program performance. This dashboard allows for real-time monitoring so that teams can immediately identify deviations and take corrective actions.Monitoring DashboardMonthly ProgressMonthly Progress Reports and Review MeetingsMonthly progress reports will be prepared to evaluate KPI achievement and discuss challenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Key Performance	growth targets, NPL reduction, or cost efficiency. These KPIs will serve as
Real-Time Monitoring Dashboardprogram performance. This dashboard allows for real-time monitoring so that teams can immediately identify deviations and take corrective actions.Monthly Progress Reports and Review MeetingsMonthly progress reports will be prepared to evaluate KPI achievement and discuss challenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Indicators (KPIs)	performance measures that help in objectively evaluating the success of the program.
Monitoring DashboardCan immediately identify deviations and take corrective actions.Monthly ProgressMonthly progress reports will be prepared to evaluate KPI achievement and discuss challenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Development of	The bank will build a real-time monitoring dashboard that displays key data related to
DashboardMonthly ProgressMonthly ProgressMonthly progress reports will be prepared to evaluate KPI achievement and discuss challenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Real-Time	program performance. This dashboard allows for real-time monitoring so that teams
Monthly Progress Reports and Review MeetingsMonthly progress reports will be prepared to evaluate KPI achievement and discuss challenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Monitoring	can immediately identify deviations and take corrective actions.
Reports and Review Meetingschallenges encountered. Evaluation meetings will be used to determine actions that need to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.Continuous Improvement andBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Dashboard	
Meetingsneed to be taken to keep the program on track.Risk Assessment and Adjustment MechanismsPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.ContinuousBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Monthly Progress	Monthly progress reports will be prepared to evaluate KPI achievement and discuss
Risk Assessment and AdjustmentPeriodic risk evaluations are conducted to detect new risks that emerge during program implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.MechanismsBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Reports and Review	challenges encountered. Evaluation meetings will be used to determine actions that
and Adjustment Mechanismsprogram implementation. If significant risks are identified, program strategies will be adjusted or mitigation measures will be implemented as needed.ContinuousBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Meetings	need to be taken to keep the program on track.
Mechanismsadjusted or mitigation measures will be implemented as needed.ContinuousBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	Risk Assessment	Periodic risk evaluations are conducted to detect new risks that emerge during
ContinuousBased on the results of monitoring and evaluation, the team will implement continuous improvements to each program, such as process optimization and	and Adjustment	program implementation. If significant risks are identified, program strategies will be
Improvement and continuous improvements to each program, such as process optimization and	Mechanisms	adjusted or mitigation measures will be implemented as needed.
	Continuous	Based on the results of monitoring and evaluation, the team will implement
Optimization	Improvement and	continuous improvements to each program, such as process optimization and
	Optimization	

**Table 16**. Detailed Explanation of Action Steps 8

	resource adjustments, to ensure the program achieves maximum results and is in line	
	with Bank Jago's strategic objectives.	
Source: Processed data (2024)		

Bank Jago can ensure that the implementation of programs and risk evaluations run effectively and efficiently. These steps support the achievement of the bank's strategic targets through systematic monitoring and evaluation, allowing the bank to maintain stability and profitability on an ongoing basis.

#### Step 9: Annual Business Plan and Strategy Adjustment

The following are the main actions in this stage:

Action	Description				
Performance Review	Management will conduct an annual performance review, evaluate KPI				
and Gap Analysis	achievement and identify gaps between planned targets and actual results.				
	This analysis helps in determining areas that require improvement or				
	strategy adjustments for the following year.				
Setting Strategic	Based on the analysis results, the team will set strategic priorities and key				
Priorities and	targets for the following year. These targets are designed to address				
Objectives	challenges or opportunities identified in the review, such as improving LDR,				
	NPL, or CAR.				
Resource Allocation	Management will allocate resources proportionally to support priority				
Planning	initiatives. This includes the allocation of capital, manpower, and				
	technology necessary for key programs to run effectively.				
Risk Adjustment and	The risk team will review potential anticipated risks based on changing				
Contingency Planning	market conditions or new targets. Risk mitigation plans and contingency				
	reserves will be prepared to address scenarios that may impact the successful				
	implementation of the annual business plan.				
Approval and	Once the plan is developed, the annual business plan will be presented for				
Alignment with	approval by executive management and the board of directors. This process				
Stakeholders	includes alignment with key stakeholders to ensure that all parts of the				
	organization are ready to support the bank's strategic goals and objectives.				

Table 17.	Detailed F	Explanation	of Action	Steps 9
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Source: Processed data (2024)

With these steps, Bank Jago can develop a business plan that is responsive to market dynamics and ensures that the entire organization moves in line with strategic goals. Proper adjustments and thorough planning support the bank's efforts to increase profitability and strengthen its position in the banking industry sustainably.

# CONCLUSION

This study aims to analyze the factors that affect the profitability of PT Bank Jago Tbk by analyzing the effect of Loan to Deposit Ratio (LDR), Non-Performing Loan (NPL), and Capital Adequacy Ratio (CAR) on profitability indicators such as Return on Assets (ROA), with Net Interest Margin (NIM) as a mediating variable. The results of the study indicate that LDR has a positive effect on ROA, which emphasizes that effective utilization of funds through credit distribution can significantly increase profitability. A high LDR level indicates more efficient use of credit, thus contributing positively to NIM and ROA. This relationship underscores the importance of aligning credit distribution strategies with growth objectives to maximize profitability.

This study also highlights a strong negative relationship between NPL and profitability indicators (NIM and ROA). Non-performing loans reduce interest-generated income, which leads to a decrease in NIM and ultimately lowers ROA. These results indicate that maintaining a low NPL level is critical to profitability, as it protects income from interest-based activities. These findings indicate that rigorous credit risk management practices and early potential identification of nonperforming loans are key to achieving sustainable profitability and minimizing the negative impact of NPLs on bank performance.

Lastly, this study found a complex relationship between CAR and ROA, where high CAR, although beneficial for absorbing risk, can limit profitability if not balanced with effective revenue-generating activities. The results show that maintaining a strong CAR helps strengthen bank resilience, but excess capital without adequate revenue-generating activities suboptimal resource can lead to utilization. The mediating role of NIM in this dynamic is evident, where CAR indirectly affects profitability through changes in interest margins. Therefore, to optimize ROA, Bank Jago must strategically balance its capital reserves with credit distribution to increase revenue without sacrificing financial stability.

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