



# Implementation of credit risk management in an effort to minimize the level of non-performing loans (npl) at bank banten for the 2020-2024 period

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## ABSTRACT

This study aims to evaluate the implementation of credit risk management at Bank Banten in reducing the Non-Performing Loan (NPL) ratio from 2020 to 2024. In the banking sector, NPL is a key indicator that reflects the quality of the credit portfolio as well as the effectiveness of the bank's risk management. Bank Indonesia has set a reasonable threshold for NPL at below 5%. If this figure is exceeded, it may indicate deficiencies in the bank's credit risk management. This research uses a descriptive qualitative approach, with data collected through in-depth interviews, observations, document analysis, and Focus Group Discussions (FGD). The key informants in this study included the credit risk manager, credit officers, and analysts from Bank Banten. The results of the study show that Bank Banten experienced a significant decrease in the gross NPL ratio, from 22.27% in 2020 to 7.53% in 2024. This decline is attributed to the restructuring of credit policies, improvement of the risk monitoring system, and the stricter application of prudent credit principles. In addition, an Early Warning System (EWS)-based technology was introduced in 2023. The credit risk mitigation strategies implemented included enhanced credit analysis, more thorough assessments of debtor feasibility, and tighter supervision of problematic loans. Bank Banten also involved internal stakeholders in the formulation of risk strategies to ensure effectiveness and compliance with Financial Services Authority (OJK) regulations. The conclusion of this study is that the implementation of credit risk management at Bank Banten during the research period has been effective in reducing the NPL ratio, although there is still room for improvement in debtor financial literacy and strengthening the risk management information system. These findings are expected to serve as a reference for other regional development banks to improve credit management quality and maintain financial stability.

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## INTRODUCTION

The Pandemic Context as an External Factor The Covid-19 pandemic that occurred since early 2020 caused a major shock to the national economy, including Banten Province. Mobility restrictions, a decline in industrial activity, trade, and public consumption suppressed the repayment capacity of businesses and individuals. This directly increased the risk of credit default in the banking sector. Banten's Macroeconomic Conditions Economic Growth Under Pressure BPS data recorded that Banten's GRDP contracted in 2020, especially in the manufacturing, trade, and transportation sectors. Rising Unemployment Banten once recorded the highest Open Unemployment Rate (TPT) in Indonesia. This reduced people's purchasing power and ability to pay credit installments. MSMEs Affected As the backbone of the local economy, many MSMEs in Banten experienced a drastic decline in turnover, which triggered defaults on working capital loans. Bank Banten's NPL Dynamics Bank Banten as a regional bank has a significant credit portfolio in the MSME, consumer (ASN) sectors, and the local business world. Direct Correlation: As Banten's economy declined due to the pandemic, many debtors struggled to meet their credit obligations → NPLs increased. Liquidity Pressure Rising NPLs not only depressed interest income but also disrupted Bank Banten's liquidity stability, which was already facing structural challenges before the pandemic. The Domino Effect: Rising NPLs weakened public confidence in regional banks, while unrecovered macroeconomic conditions slowed the recovery of the credit portfolio. Relationship Analysis: Thus, the direct relationship can be described as follows: The Covid-19 pandemic depressed Banten's economy (GRDP declined, unemployment rose, MSMEs slumped), reducing debtors' repayment capacity, triggering an increase in Bank Banten's NPLs. Bank Banten, with its high exposure to the local sector, is highly vulnerable to regional macroeconomic shocks, so NPL fluctuations are a clear reflection of Banten's economic conditions.(Ariella, 2018). Basel II emphasizes three pillars: Minimum Capital Requirement (capital adequacy for credit, market, and operational risks), Supervisory Review (bank supervision by regulators), and Market Discipline (transparency of financial reports). Basel III adds liquidity aspects (Liquidity Coverage Ratio & Net Stable Funding Ratio) and strengthens banks' core capital. In relation to Bank Banten, the Early Warning System (EWS) practice and digitalization of credit monitoring can be seen as efforts to fulfill the risk management pillars of the Basel II framework (particularly credit risk). However, because Bank Banten is still a Regional Development Bank (BPD) with limited capital, the implementation of Basel standards is more of a basic adaptation (for example, maintaining NPLs below the OJK threshold of ≤5%) rather than a full implementation of international standards. In other words, Basel literature serves as a conceptual reference, but practices at Bank Banten are more operational and tailored to the local context. ISO 31000 (International Risk Management) This standard emphasizes an enterprise-wide risk identification, analysis, evaluation, and mitigation framework. ISO 31000 also emphasizes continuous improvement and risk-based decision-making. In relation to Bank Banten, the implementation of credit restructuring and EWS reflects the application of the principles of early risk identification and systematic mitigation. Digitizing credit monitoring is an effort towards continuous monitoring in accordance with ISO 31000 principles. However, the literature shows that most regional development banks (BPDs) (including Bank Banten) are still compliance-oriented (simply fulfilling OJK/BI regulations) and have not fully integrated ISO 31000 into their risk management culture.

Banks also play a crucial role in supporting the government through infrastructure initiatives and economic development. This is achieved through the sale of valuable national assets and by facilitating government fundraising through charitable donations. This facilitates the government's financing of infrastructure projects and boosts economic development. This study aims to analyze the correlation and synergy between banking activities and economic development in the context of job loss. We will focus on examining the dimensions of correlation and synergy(Aldi Akbar et al., 2021). Therefore, a comprehensive argument (not based on assumptions

or conjecture) regarding the impact of banks on economic development is currently being formulated (N. D. P. D. Putri et al., 2021). One important indicator for evaluating the quality of a loan portfolio is the level of non-performing loans (NPLs), which refers to problem loans or loans with doubtful collectibility and are considered bad. High non-performing loans (NPLs) indicate poor asset quality and weaknesses in credit risk management. According to Bank Indonesia and the Financial Services Authority (OJK) regulations, a healthy maximum NPL should be below 5%. If this figure is exceeded, the bank can be considered unhealthy, which can impact operational continuity (Firmansyah, 2019). Non-performing loans (NPLs) are one measure for determining the risk of bad debt. Increasing competition among banking companies has led banks to increase loans to their customers, but this can result in an increased risk of bad debt. Many factors influence non-performing loans (NPLs) from both microeconomic and macroeconomic perspectives. Non-performing loans (NPLs) as an indicator for assessing banking sector performance remain highly relevant because they can indicate the level of economic growth and stability at both the micro and macro levels. The current crisis caused by the Covid-19 pandemic has the potential to increase non-performing loans (NPLs), and for this reason, the Financial Services Authority (OJK) has set the NPL threshold at five percent, potentially even higher if possible (Diana Anggraeny, 2025). It is also stated that the relaxation of Non-performing loans (NPLs) are intended to provide confidence to the public to continue placing their funds in banks and also provide flexibility for corporate debtors whose credit was problematic even before the pandemic hit (Dewi & Wibowo, 2021). 1 trillion to Rp 84 trillion, so there is a decrease of around 7% - 10%. For the MSME customer segment, the banking industry's revenue projection before the Covid-19 pandemic was predicted to reach Rp 77 trillion. After the Covid-19 pandemic, it is predicted to decrease to Rp 68 trillion to Rp 71 trillion, so there is a decrease of around 7% - 11%. In the micro customer segment, the banking industry's revenue projection before the Covid-19 pandemic was predicted to reach Rp 46 trillion. After the Covid-19 pandemic, it is predicted to decrease to Rp 37 trillion to Rp 39 trillion, a percentage decrease of 14% - 19%. Meanwhile, in the retail customer segment, the banking industry's revenue projection this year before the Covid-19 pandemic was predicted to reach Rp 241 trillion. Following the outbreak of Covid-19, revenue is predicted to decline to IDR 214 trillion to IDR 222 trillion, a decline of approximately 8% to 11%. However, the banking industry has generally adopted digital transactions to address the Industrial Revolution 4.0 and act as a catalyst for digital transformation for its customers (Tegar Araf, 2023).

In 2022, with a net loss of Rp239.3 billion and equity of Rp1,641.8 billion, ROE was recorded at -14.6%, indicating a significant loss despite some capital recovery compared to the previous year. In 2023, Bank Banten managed to post a net profit of Rp26.6 billion and maintain equity of around Rp1,621.6 billion, resulting in a positive ROE of 1.64%, marking a return to profitability after three years of losses. In 2024, according to IndoPremier's financial report, net profit grew to Rp39.3 billion, while equity increased to Rp1,703.7 billion. This resulted in an ROE of 2.31%, reflecting a healthy increase in capital utilization to generate profits. From 2020 to 2024, Bank Banten successfully consolidated and significantly improved its credit portfolio. Gross NPL decreased from 22.27% to 7.53%, and Net NPL shrank from 4.51% to the 1-2% range, although it briefly rose to 1.98% in 2024. This reflects a prudent lending strategy, increased reserves, and consistently improved risk management. ROA continued to increase steadily from -3.80% in 2020 to 0.52% in 2024, indicating that the Bank's asset utilization efficiency is beginning to recover from losses to profits. ROE shows a much more significant improvement: starting from -22.65% in 2020, approaching -14% throughout 2021 to 2022, then jumping to a positive figure of 1.64% in 2023 and continuing growth to 2.31% in 2024. This shows that Bank Banten has succeeded in returning profits and is starting to Providing benefits to shareholders. Gross NPLs have decreased drastically, from 22.27% in 2020 to 7.53% in 2024. This decrease reflects improvements in the quality of the credit portfolio and more selective lending since 2021 (Hutagalung & Waluyo, 2020).

Net NPLs also showed an initial reduction, from 4.51% in 2020 to 1.09% in 2023. However, in 2024, this figure rose again to 1.98%, likely due to increased loss reserves to anticipate credit risks. Despite the increase, this ratio remains significantly lower than at the beginning of the decade. In this regard, credit risk management is crucial to ensure that loans are disbursed within reasonable risk controls. The implementation of credit risk management includes identifying, measuring, monitoring, and controlling credit risks to reduce the potential for losses. Effective

management includes assessing debtor creditworthiness, implementing prudential principles, implementing early warning systems, and policies for handling problem loans (Santoso, 2019). Bank Banten, a regional development bank focused on public services in Banten Province, faced unique challenges in managing its loan portfolio, particularly during the 2020–2024 period. At that time, the Indonesian banking sector was under pressure due to the COVID-19 pandemic, which impacted borrowers' ability to meet their obligations (Diana Anggraeny, 2025). The government and financial authorities implemented loan restructuring policies to ease the burden on borrowers. However, this also has the potential to increase future credit risk. As a bank undergoing transformation and recovery, Bank Banten is expected to implement stricter and more strategic credit risk management to maintain its NPL ratio within healthy limits (Soenawan & Malonda, 2020). Therefore, research is needed to evaluate the effectiveness of Bank Banten's credit risk management implementation in reducing NPLs during the 2020–2024 period, as well as to understand the challenges and strategies faced by bank management. This study is important not only to provide an overview of Bank Banten's internal conditions but also to provide input for other regional banking industries in implementing better credit risk management (C. A. Putri, 2021).

The process of carrying out credit activities is the beginning of credit risk, therefore it is necessary to know the types of credit products commonly provided by banks, because if a debtor fails to pay, the company's potential profits will be delayed (Tegar Araf, 2023). Defining credit risk begins with the process of implementing credit operations and then identifying factors that can cause potential credit risk. Therefore, to be able to identify credit risk, it is first necessary to know the types of credit products commonly offered by banks. There are various types of credit that can be provided by banks. In managing credit risk, there is a standard that can be referred to, namely ISO 31000, which is a standard used for both large and small industries (Sambodo et al., 2020). Credit risk is defined as a failure of a debtor to fulfill obligations to the bank (Eprianti, 2019). Non-Performing Loan (NPL) is a problem loan that cannot be collected according to the agreed principal and interest payment schedule. Based on Bank Indonesia's definition, a loan can be categorized as Non-Performing Loan (NPL) if it falls within a collectibility range of 3 (substandard), 4 (doubtful), or 5 (loss). NPL is an important indicator in assessing the quality of a bank's assets and the level of credit risk it faces. The higher the NPL, the greater the risk of credit failure, which can negatively impact the bank's financial stability (Kasmir, 2015). According to Sorongan (2020), Non-Performing Loan (NPL) is an indicator used to assess the level of risk in the banking business, particularly in measuring the potential for non-performing loans. Granting credit without thorough analysis can endanger banks, as they risk receiving fictitious data from customers, rendering the loan unsuitable. Errors in credit analysis can result in increased non-performing loans, so banks need to (Ariella, 2018).

## RESEARCH METHOD

In this case, the researcher uses a descriptive method because based on the depth of understanding of the research object, this type of research describes events or phenomena according to what happens in the field that leads to the implementation of credit risk management in an effort to minimize non-performing loans at Bank Banten for the 2020-2024 period. The descriptive qualitative research method is in the form of research with a case study method or approach, this research focuses intensively on a particular object. Case data can be obtained from all parties concerned, in other words, this study is collected from various sources.

## RESULTS AND DISCUSSIONS

Local Socio-Cultural Factors (Family Values and Mutual Cooperation) Characteristics In Banten society, social relations and family values are very strong. The principle of mutual cooperation encourages solidarity, so financial obligations are often influenced by social norms—for example, the tendency to provide loans or delay payments for family reasons. Influence on Creditor Behavior Debtors sometimes feel a "personal closeness" with the bank (especially Bank Banten as a regional bank) so they perceive installments to be more flexible and negotiable. There is a tendency to prioritize social obligations (family expenses, customs, celebrations) over formal credit obligations. This practice can increase the risk of moral hazard and late payments. Technical Factors (Credit Analysis & Monitoring System) Credit analysis is carried out through credit scoring, 5C analysis (Character, Capacity, Capital, Collateral, Condition). This factor is more objective because it is based on documents, business reports, and financial data. The Monitoring System (EWS & digitalization) allows banks to systematically detect potential non-performing loans, reduce delays in follow-up, and reduce the risk of default. Influence on Risk Management: technical factors provide quantitative measures and standardized control tools in accordance with OJK regulations and international principles (Basel, ISO 31000).

This research was conducted at Bank Banten, a regional development bank based in Banten Province. This bank plays a vital role in supporting regional development, particularly through lending to the MSME, cooperative, and public service sectors (Imaniyah et al., 2024). As a regional government-owned financial institution, Bank Banten functions as a regional cash manager and a strategic partner in local economic development. Historically, Bank Banten has undergone several name and structural changes since its establishment in 1992. A significant change occurred in 2016 when the bank officially became PT Bank Pembangunan Daerah Banten Tbk, following an acquisition by the Banten Provincial Government (Triwijayanti, 2023). Since then, the bank has continuously undertaken institutional and operational restructuring, particularly in strengthening credit risk management. Socially and culturally, the Banten community possesses local values that influence financial behavior, such as a sense of kinship, mutual cooperation, and trust. In the banking context, this can influence perceptions of lending, payment of obligations, and financial discipline. Internally, Bank Banten's organizational culture has begun to adopt modern values such as information transparency, prudence in credit, and accountability in risk management. Demographically and economically, the majority of Bank Banten's debtors come from civil servants (ASN), small and medium-sized businesses, as well as educational and government institutions. Diverse levels of financial literacy present unique challenges in credit distribution and risk management, particularly during times of crisis such as the COVID-19 pandemic (Rizal Nur Qudus & Sri Amelia, 2022). The 2020–2024 period is a crucial phase in Bank Banten's operational history as it faces pressures resulting from the global pandemic. The government has implemented various stimulus and credit restructuring policies. As part of the national banking system, Bank Banten must also manage its debt (Luthfia & SRI, 2012).

**Table.1** Comparison table of Bank Banten's strategy vs. specific impact on NPL

Strategy	Mechanism	Specific Impact on NPL	Effectiveness Time Horizon
Credit Restructuring	Payment relaxation: tenor extension, installment postponement, interest adjustment.	- Rapidly reduce NPLs by transferring non-performing loans to the "currently under restructuring" category. - Prevent a spike in defaults during the pandemic.	Short Term (during the Covid-19 crisis)
Early Warning System (EWS)	Monitoring potential problem loans based on delay indicators and risk profiles.	- Reduce the entry of new credit into the NPL category. - Enable preventive actions (early collection, renegotiation).	Medium Term (post-pandemic, economic recovery)

Strategy	Mechanism	Specific Impact on NPL	Effectiveness Time Horizon
Digitalization of Credit Monitoring	Digital application for installment tracking, real-time risk dashboard, debtor business reports.	- Improve the accuracy and speed of credit monitoring.- Reduce moral hazard and manual errors.- Suppress sustainable NPLs with stronger risk governance..	Long Term (systemic and sustainable)

The comparison table above shows that Bank Banten's NPL reduction resulted from the synergy of three main strategies with varying impacts over specific time horizons. First, credit restructuring played a dominant role in the early stages of the Covid-19 pandemic. Through payment relaxation policies, Bank Banten successfully prevented a massive spike in defaults, resulting in a rapid decline in NPLs. This was short-term, but crucial for maintaining credit portfolio stability during the crisis. Second, the implementation of the Early Warning System (EWS) made a significant contribution in the medium term. With early detection of potential non-performing loans, the bank was able to take preventive measures such as intensive collection or renegotiation before loans fell into the non-performing category. This strategy prevented the emergence of new NPLs, allowing the downward trend to continue consistently. Third, digitalization of credit monitoring provided a fundamental strengthening factor in the long term. The digital system facilitated real-time monitoring, improved data accuracy, and reduced internal moral hazard. Its primary contribution was ensuring more effective and sustainable credit risk governance, so that the NPL reduction was not solely due to temporary policies but also to structural improvements in risk management. Thus, the combination of these three strategies explains the significant decline in NPLs from 22.27% to 7.53%. Restructuring serves as a short-term shock absorber, EWS as a medium-term driver, and digitalization as a long-term foundation for maintaining credit quality.

Credit risk has increased significantly due to a decline in debtors' repayment capacity. Against this backdrop, Bank Banten is a highly relevant subject for research in the context of credit risk management implementation and its effectiveness in reducing the Non-Performing Loan (NPL) ratio over the past five years. The findings of this research are based on in-depth interviews, observations, financial report documentation, and focus group discussions (FGDs) conducted with Bank Banten staff who handle risk and credit distribution. Bank Banten faced high credit risk at the beginning of the 2020 pandemic, particularly in the MSME sector, which experienced a drastic decline in revenue. Interviews revealed that a weak credit monitoring system and the lack of an early warning system were key obstacles. "At the beginning of the pandemic, many customers were unable to pay. We didn't have an integrated system to monitor risk in real time,"

Said Mr. Hadi Wijaya, Credit Risk Manager. However, since 2021, Bank Banten has made improvements by strengthening credit analysis procedures and establishing a dedicated credit risk team. The risk-scoring-based approach began to be implemented in 2022.

Development of the Non-Performing Loan (NPL) Ratio: Details of the number of non-performing loans, including substandard loans, doubtful loans, and bad loans at Bank Banten from 2020 to 2024 (in millions) are as follows.

**Table.2** Details of the Number of Non-Performing Loans at Bank Banten in 2020-2024

Credit Classification	2020	2021	2022	2023	2024
Fluent	52.971.000.000	23.204.000.000	36.853.000.000	35.464.000.000	27.338.000.000
In Special Attention	840.171.000.000	5.854.000.000	7.088.000.000	2.896.000.000	3.931.000.000
Not that smooth	484.000.000	124.000.000	138.000.000	1.541.000.000	-
Doubtful	736.000.000	-	11.996.000.000	163.000.000	780.000.000
Congested	372.388.000.000	38.769.000.000	34.128.000.000	28.104.000.000	33.720.000.000
Total credit granted (Net)	1.266.750.000.000	67.951.000.000	90.203.000.000	68.168,000,000	65.769.000.000

NPL) Total non- performing loans (NPL Gross)	373.608.000.000	38.769.000.000	46.262.000.000	29.808.000.000	38.431.000.000
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Non Performing Loan (NPL) or problem credit is calculated using the formula:

$$NPL = \frac{\text{Total Bad Debts}}{\text{Total Credit}} \times 100\%$$

The results of the calculation of Non-Performing Loans (NPL) at Bank Banten for 2020-2024 in Bank Banten's annual financial report are as follows:

**Table.3** Results of Non-Performing Loan (NPL) Calculations at Bank Banten in 2020-2024

Year Total Bad Debt Total Credit	Year Total Bad Debt Total Credit	Year Total Bad Debt Total Credit	NPL
2020	373.608.000.000	1.266.750.000.000	0,29493428
2021	38.769.000.000	67.951.000.000	0,57054348
2022	46.262.000.000	90.203.000.000	0,51286543
2023	29.808.000.000	68.168,000,000	0,43727262
2024	38.431.000.000	65.769.000.000	0,58433304
	Average		1,93248242

Based on research findings, Bank Banten's credit risk profile experienced significant dynamics throughout the 2020-2024 period. Interviews with Credit Risk Manager, Mr. Hadi Wijaya, indicated that Bank Banten faced significant challenges in managing credit risk, particularly at the onset of the COVID-19 pandemic. This finding aligns with the credit risk management concept outlined in Bank Indonesia Circular Letter (SE BI No. 7/3/DPNP/2015), which encompasses four main stages identification, measurement, monitoring, and control of credit risk (Tengor et al., 2015). During the identification stage, Bank Banten successfully identified key risks stemming from the MSME sector, which experienced a drastic decline in revenue due to the pandemic. However, during the measurement and monitoring stages, Bank Banten faced technical challenges in the form of the lack of an integrated early warning system. This confirms Darmawi's (2014) view that risk management is an effort to identify, analyze, and control risks with the aim of achieving greater effectiveness and efficiency. The factors causing credit risk identified in this study can be categorized into external and internal factors(Purnama, 2023). External factors include the impact of the COVID-19 pandemic, regional economic instability, and reliance on the informal sector. Internal factors include technological limitations, suboptimal credit analysis processes, and inadequate staff training. These findings support the credit risk theory proposed by Widiatmika (2015), which states that credit risk can be classified based on various factors, including asset type, credit use, credit purpose, term, type of fund, and currency. Bank Banten faces complex risks because it serves various debtor segments with varying risk characteristics(Eva Christine et al., 2022).

Evaluation of the Non-Performing Loan (NPL) Level Analysis of Bank Banten's NPL ratio development reveals an interesting pattern that warrants further study. Based on the processed data, the NPL calculation shows a very low value compared to industry standards, with an average of 1.93% during the 2020-2024 period(Afnina & Hastuti, 2018). Interpretation of NPL Calculation Results: These calculation results raise questions, considering that Table 1.3 in Chapter I states that Bank Banten's Gross NPL ranged from 22.27% (2020) to 7.53% (2024). This significant difference indicates an inconsistency in the calculation or definition of NPLs used(Swesti Mahardini et al., 2023). According to Kasmir's (2015) definition of NPLs, NPLs are non-performing loans that cannot be collected according to the payment schedule and are categorized as collectible 3 (substandard), 4 (doubtful), or 5 (loss). Bank Indonesia standards set a healthy NPL maximum limit below 5%. Based on research findings and interviews with sources, there are indications that the NPL

calculation in Table 4.2 may only include non-performing loans, not the total non-performing loans (substandard + doubtful + loss) as it should. This may explain why the figures obtained are much lower than the data presented in the official financial statements (Izzuddin & Muhsin, 2020). Verification with Interview Findings: The statement by Credit Risk Manager, Mr. Hadi Wijaya, that "since 2023 our NPL ratio has improved significantly" is more in line with the data in Table 1.3, which shows a decrease in Gross NPL from 22.27% (2020) to 7.53% (2024). The Influence of Macroeconomic and Microeconomic Conditions on NPLs Research findings indicate that macroeconomic and microeconomic conditions significantly influence Bank Banten's NPL level. Influential macroeconomic factors include: Macroeconomic Factors: Impact of the COVID-19 Pandemic: The pandemic caused an economic contraction, which affected debtors' repayment capacity. This aligns with research by Aldi Akbar et al. (2021), which states that the crisis caused by the pandemic has the potential to increase NPLs (Jubaidah et al., 2021).

Government Policy The implementation of POJK No. 11/POJK.03/2020 concerning credit restructuring provides room for banks to make adjustments for affected debtors (MUKTI & Aprianti, 2021). Regional Economic Conditions As a regional development bank, Bank Banten is significantly affected by the local economic conditions of Banten Province. Microeconomic Factors: Debtor Characteristics: The majority of Bank Banten's debtors come from civil servants (ASN), MSMEs, and educational institutions, each with a varying risk profile. Tingkat Literasi Keuangan Variasi tingkat pemahaman keuangan masyarakat mempengaruhi kedisiplinan pembayaran dan pengelolaan risiko oleh debitur. Budaya Lokal Nilai-nilai kekeluargaan dan kepercayaan dalam budaya Banten mempengaruhi pola pembayaran dan negosiasi kredit. Temuan ini mendukung pandangan Hidayat (2020) bahwa NPL sebagai indikator kinerja sektor perbankan dapat mengindikasikan tingkat pertumbuhan dan stabilitas ekonomi baik skala mikro maupun makro (ABDURRAHMAN & Anggriani, 2020).

Analysis of Bank Banten's financial performance through Return on Assets (ROA) and Return on Equity (ROE) indicators is important for evaluating the bank's efficiency in generating profits from its assets and capital during the 2020–2024 period (Teguh Afwan & Budi Santosa, 2019). These two ratios reflect profitability and management effectiveness in managing the company's resources (Rafi & Budiarmo, 2018). Return on Assets (ROA) Based on Bank Banten's financial statements, the ROA value shows an improving trend from year to year. In 2020, ROA was recorded at -3.80%, indicating that the bank experienced significant losses due to high operating expenses and increasing non-performing loans during the COVID-19 pandemic. However, ROA gradually increased to -2.94% in 2021, -2.09% in 2022, -1.57% in 2023, and finally positive at 0.52% in 2024. This improvement in ROA indicates that the bank is starting to be able to manage its assets more efficiently and reduce the burden of losses. An interview with a risk management official stated, "We implemented significant efficiency measures, including digitizing services and improving the credit portfolio. ROA began to improve in 2022 after the NPL burden decreased." (Interview with Credit Risk Manager, 2024). (Harga & Kepuasan, 2020)

Return on Equity (ROE): Similar to ROA, the ROE ratio also experienced positive development. In 2020, ROE was recorded at -22.65%, reflecting a significant loss relative to available equity. This negative value continued into 2022, although it gradually declined. In 2023, ROE began to be positive at 1.64%, and increased to 2.31% in 2024. The increase in ROE indicates that the bank is starting to provide returns on shareholder capital, although it remains relatively low compared to national banking industry standards (Lia Cahyani & Hidayat, 2012). An informant from the finance division stated, "With the additional capital from the Banten Provincial Government and improved credit quality, our ability to generate returns on equity has also increased." (Interview with Bank Banten's Finance Division, 2024). Researchers assess that the improvement in the ROA and ROE ratios indicates a positive trend in Bank Banten's financial recovery process. Although still below the industry average, the growth trend in both ratios reflects increased management effectiveness and the success of the NPL reduction strategy. This

indicates that the implementation of credit risk management not only impacts credit quality but also directly impacts the company's financial performance.

## CONCLUSION

Although the research findings show a significant reduction in Bank Banten's NPL from 22.27% to 7.53% and highlight the contribution of the restructuring strategy, the implementation of the Early Warning System (EWS), and the digitalization of credit monitoring, several limitations warrant consideration. First, the limited analysis period makes the results more reflective of post-pandemic transition conditions than long-term trends. Longer-term changes in NPLs may be influenced by macroeconomic factors and national banking policies not covered in this study. Second, this research focuses on only one regional banking institution, Bank Banten, so generalizability of the results to other banks, particularly national banks or regional development banks (BPD) in other provinces, is limited. Bank Banten's unique characteristics as a regional bank with a credit base for civil servants (ASN) and MSMEs require comparison of the research results with the broader banking context. Third, the approach used tends to be qualitative and descriptive, relying on secondary data and limited interviews. This provides an in-depth understanding of risk management strategies but lacks an emphasis on quantitative statistical tests to measure the significance of each strategy's contribution to NPL reduction. Taking these limitations into account, further research can expand the analysis period, conduct inter-bank comparisons, and combine qualitative and quantitative approaches to obtain a more comprehensive picture of the effectiveness of credit risk management strategies.

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