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The Impact Of Credit Risk On The Financial Performance Of Banks In Indonesia Listed On The Indonesian Stock Exchange For The Period 2018 - 2022

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Abstract

Banking activities collect funds from customers and distribute credit to customers in the form of loans that are added with interest for the bank's opinion. Lending activities provided by banks have risks that must be mitigated to avoid large losses and adversely affect the bank's financial performance. This study used panel data regression method with sample of 35 Indonesian Banks listed on the Indonesia Stock Exchange with the period 2018 - 2022. Referring to the main research, bank financial performance is measured by return on assets and net interest margin, while bank risk is measured by the variables non-performing loans, capital adequacy ratio, loan loss provision ratio, and cost per loan ratio, this study also added new control variables, such as bank size and leverage. The results of this study found that there is an impact between NPL with ROA, LLPR with ROA, CAR with NIM, and CPLR with NIM. While there is no impact of CAR with ROA, CPLR with ROA, NPL with NIM, and LLPR with NIM.

Keywords: Bank Size, Capital Adequacy Ratio, Cost Per Loan Ratio, Leverage, Loan Loss Provision Ratio, Net Interest Margin, Return On Assets

INTRODUCTION

The banking sector serves as a crucial indicator of a country's economic health, which play significant role in the global economy (Ghosh & Mondal, 2022). In Indonesia, banks act as financial intermediaries. Bank collects funds from the public through various means, such as deposits, and redistributing these funds through loans to enhance living standards (Undang-Undang Nomor 10 tahun 1998). Commercial banks have a role to facilitate the flow of savings from depositors to potential investors, aiming for profitability in their operations (Siddique et al., 2022).

Based on Indonesian Financial Services Authority (OJK) in 2021, despite facing significant financial crisis over the past decades, such as the Asian financial crisis in 1997-1998 and the global recession in 2008-2009, Indonesia's banking industry has adapted its strategies. Today, banks compete by offering appealing loan and deposit terms, effectively managing cash flow (Putri & Gandakusuma, 2021).

Bank performance is evaluated based on profit earnings, which can be impacted by various factors, including external factor such as the Covid-19 pandemic (Rubaiyath & Lalon, 2022). In 2020, Indonesian public banks experienced their lowest profits, amounting to Rp 46.927 billion, due to the Covid-19 pandemic (Octavia N et al., 2022). However, there was an upward trend in profit in the following years after.

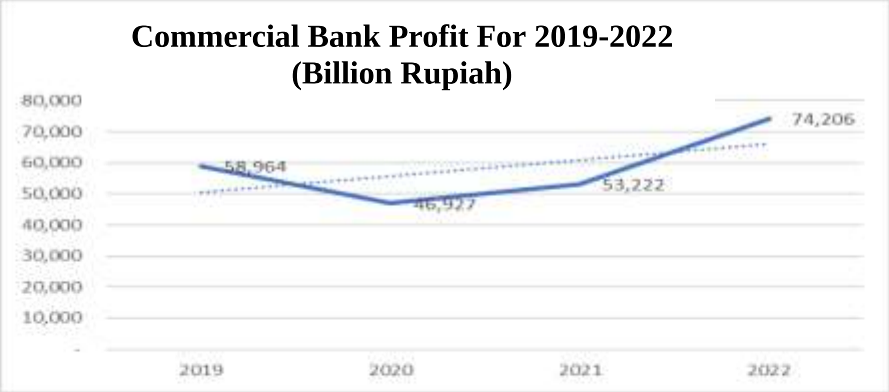

Figure 1: Commercial Bank Profits for the Period 2019 – 2022
Source : Financial Services Authority (OJK), 2023

Some sources such as Ghosh & Mondal (2022), Yeasin (2022), Echobu & Nkiru Philomena (2019) have stated that one indicator of a bank's success is seen through its financial performance obtained from their business development, which can be observed through measuring Return on Assets (ROA). ROA depicts how effectively a company's management utilizes the company's investments to generate profits (Fadun & Silwimba, 2023). ROA is utilized as a parameter in assessing financial performance because it accurately calculates the return rate from asset management (Primalia Khoirunnisa, 2022). According to Purnamasari et al. (2016), a high ROA reflects a healthy bank performance, as it indicates the bank's ability to generate profits or profitability.

Ghosh & Mondal (2022) and Kirimi et al. (2022) have stated that bank profitability can also be measured by Net Interest Margin (NIM). Banking activities involving deposits and loans make interest crucial in banking operations (Primalia Khoirunnisa, 2022). According to Kirimi et al. (2022), a high NIM means that a bank can effectively allocate third-party funds, thus generating high profits from interest on loans provided to borrowers, but the bank also incurs interest expenses on deposits.

In a study conducted by Korompis Ria et al. (2020), banks have 8 types of risks, namely Credit Risk, Market Risk, Liquidity Risk, Operational Risk, Legal Risk, Reputation Risk, Strategic Risk, and Compliance Risk. However, this study will only focus on Credit Risk. Bank lending activities pose credit risks resulting from borrowers' failures to meet principal and loan interest repayment obligations, directly impacting bank profitability (Ghosh & Mondal, 2022).

Non-Performing Loans (NPL) are a key indicator of troubled loans, with the NPL ratio accurately determining whether a bank is in good condition or experiencing a crisis due to a decline in credit growth, ultimately affecting the financial system losses in the country's economy (Febri Nanda Marchela & Purwanto Widodo, 2023). Every loan provided by a bank to customers increases the potential for an NPL ratio increase (Fanny et al., 2020).

According to Financial Services Authority (OJK) on 2022, the NPL value in Indonesia increased during the Covid-19 pandemic due to government-imposed restrictions, causing many debtors to be unable to generate profits, thus being unable to repay principal and loan interest to the bank, consistent with the research conducted by (Putri & Gandakusuma, 2021).

The fluctuating trend of Non-Performing Loans (NPL) at Bank Umum Indonesia in 2021 tended to decrease post the Covid-19 pandemic, staying below the acceptable threshold of 5% as per OJK regulations (OJK, 2022).

Capital Adequacy Ratio (CAR) serves as a key determinant of credit risk. Ghosh & Mondal (2022) highlight CAR's role in protecting depositors and enhancing global bank stability. OJK mandates a minimum CAR of 8% for Indonesian banks. A strong CAR enhances financial

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performance and stability, per Akomeah Jacob et al. (2020). While previous studies suggest CAR influences bank profitability, Kirimi et al. (2022) found no significant effect on Return on Assets (ROA) but noted an impact on Net Interest Margin (NIM).

Loan Loss Provision Ratio (LLPR) safeguards banks from high credit risks, impacting bank income (Ghosh & Mondal, 2022). Banks set aside funds as loan loss provisions to mitigate these risks, with LLPR influenced by national economic growth rates (Huizinga & Laeven, 2019).

The Cost per Loan Ratio (CPLR) affects bank profitability by indicating efficiency in loan distribution (Bhattarai, 2016). High CPLR suggests significant costs for loan purposes, but it also reflects a bank's ability to provide profitable loans to customers (Ritesh Shresta, 2017).

Based on the background and previous research, this study aims to investigate the impact of credit risk on the financial performance of banks listed on the Indonesia Stock Exchange. It explores how credit risk management affects bank financial performance, using ROA and NIM as dependent variables, and NPL, CAR, LLPR, and CPLR as risk management indicators, building upon the research conducted by Ghosh & Mondal (2022) in India.

RESEARCH METHODS

This study aims to analyze the impact of independent variables such as NPL, CAR, LLPR, and CPLR on profitability ratios measured using ROA and NIM. Panel data is utilized in this study, combining time series and cross-sectional data from multiple companies. The sampled data for this research comprises banking companies in Indonesia listed on the Indonesia Stock Exchange during the period from 2018 to 2022. The data is processed using Eviews 9, utilizing correlation and regression analysis along with descriptive statistics.

RESULT AND DISCUSSION

This study focused on 35 conventional banking companies listed on the Indonesia Stock Exchange from 2018 to 2022. The sampling method employed purposive sampling, selecting companies based on specific criteria: (1) being Indonesian banking companies listed on the Indonesia Stock Exchange during the 2018-2022 period, (2) operating as conventional banks, (3) having complete financial statements from 2018 to 2022, and (4) having available data for measuring each variable in every company.

Table 1
Test Table for Model Selection

Model	Test	Chow	LM	Hausman
ROA	Critical Value	90.809430	17.97236	5.381048
	Prob	0.0000	0.0000	0.4959
NIM	Critical Value	269.583591	166.3539	6.116622
	Prob	0.0000	0.0000	0.4103

Based on the results of data processing for model selection of ROA and NIM, the Cross-section Chi-Square probability value obtained in the Chow Test is 0.0000 <0.05. That means the accepted model is the Fixed Effect Model (FEM), which lead the next process into the Hausman Test. The Hausman Test obtained a Cross-section Chi-Square probability value of 0.4959> 0.05. Based on the result, the accepted model is Random Effect Model (REM). So, the last model selection test required is the Lagrange Multiplier, obtained a Cross-section probability value of Breusch-pagan of 0.0000 <0.05. The result conclude that the accepted model is the Random Effect Model (REM). Based on the three model selection tests, it can be concluded that the model chosen in this study is the Random Effect Model (REM).

Table 2
T Test Model

Independent	**Model ROA**		**Model NIM**	
	Coefficient	**Prob.**	**Coefficient**	**Prob.**
Constant	-0.115336	0.0112	0.148268	0.0033
NPL	-0.184844	0.0101	0.076609	0.0919
CAR	-0.003009	0.3578	-0.015800	0.0031
LLPR	-0.000917	0.0000	0.000088	0.2209
CPLR	-0.030650	0.1745	-0.169806	0.0000
Goodness of Fit Test				
R-square	0.224109		0.2802222	
Adj Rs-square	0.196399		0.254515	
Fstatistik	8.087546		10.90087	
Prob Fstat	0.000000		0.000000	

Based on the results of hypothesis testing that has been carried out using the T test (partial), the effect of the independent variables and control variables on the dependent variable can be explained as follows:

H1: There is Impact Between Non-Performing Loans on Profitability

The regression test results in this study found that Non-Performing Loans (NPL) significantly negatively impact Return on Assets (ROA) and do not affect the Net Interest Margin (NIM) in conventional banking in Indonesia from 2018 to 2022. This aligns with the findings of Ghosh & Mondal (2022), indicating a relationship between NPL and ROA but differing on NPL's impact on NIM, which was found to be insignificant in this study.

Similar results were also found in Yeasin's (2022) research on six Commercial Banks in Bangladesh from 2010 to 2019, stating that NPL ratio impacts the ROA ratio. Fadun & Silwimba's (2023) study on Nigerian Banks from 2005 to 2019 further supports these findings, indicating a relationship between NPL and ROA. This suggests that troubled loans or defaults on principal and interest payments affect a bank's profitability, and fluctuations in NPL reflect the bank's ability to utilize its assets effectively.

There was also similar finding that observed in Nugrahaning et al.'s (2016) study on publicly listed banks in Indonesia from 2011 to 2015, stating that NPL does not significantly impact NIM. This is consistent with Rmp et al.'s (2014) research, indicating no significant impact of NPL on NIM. The lack of NPL impact on NIM may be due to the average NPL value during the study period being 2.98%, below Bank Indonesia's requirement of 5%, indicating a low level of troubled loans and suggesting good performance without needing to consider NIM. Additionally, other factors such as interest rates, operational costs, and bank risk management policies may have more significant impacts on NIM compared to NPL, which has an impact but not directly.

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H2: There is Impact Between Capital Adequacy Ratio on Profitability

The regression analysis in this study found that the Capital Adequacy Ratio (CAR) does not impact Return on Assets (ROA) but does impact Net Interest Margin (NIM) in conventional banking in Indonesia from 2018 to 2022. This aligns with Ghosh & Mondal's (2022) findings, indicating a relationship between CAR and NIM but contradicting results on CAR's impact on ROA in this study.

Contrary findings were observed in Yeasin's (2022) research, stating that CAR impacts ROA. Relevant research by Andriansyah (2019) also suggests that CAR does not affect ROA, implying that bank profitability is not impactd by capital adequacy but rather by effective capital management to generate profits.

Similar results were found by Kirimi et al. (2022) in commercial banks in Kenya, indicating that CAR impacts NIM due to the bank's income from interest received on loans, which are associated with risks requiring preparation. This is consistent with Sinaga et al.'s (2023) findings, stating that CAR affects NIM, with CAR size impacting total interest income.

CAR's impact on NIM stems from its ability to indicate a bank's capacity to generate profit margins from interest or NIM. Banks with higher CARs tend to have higher NIMs, making CAR a factor affecting bank profitability through its impact on NIM.

H3: There is Impact Between Loan Loss Provision Ratio on Profitability

The regression analysis in this study found that Loan Loss Provision Ratio (LLPR) affects Return on Assets (ROA) but does not impact Net Interest Margin (NIM) in conventional banking in Indonesia from 2018 to 2022. This mirrors Ghosh & Mondal's (2022) findings, indicating a relationship between LLPR and ROA but contradicting results regarding LLPR's impact on NIM in this study.

A study by Ahangar, H. A., & Najaf, A. (2015) revealed that LLPR significantly impacts ROA, with higher LLPR leading to lower ROA, suggesting anticipated losses in loan repayments affecting financial performance. Similarly, Mubarak, M. A., & Hosen, S. (2016) found a negative relationship between LLPR and ROA, indicating that higher LLPR leads to decreased ROA, emphasizing the importance of managing credit risk and financial performance. Supporting these findings, Weinechita Pelealu & Worang (2018) concluded that LLPR affects bank profitability.

However, Widya & Purwanto's (2019) research found no significant impact of LLPR on NIM, suggesting that credit distribution policies and credit risk management indicated by LLPR do not directly affect net interest margins in the context of 35 banks listed on the Indonesia Stock Exchange from 2018 to 2022.

H4: There is Impact Between Loan Loss Provision Ratio on Profitability

The regression analysis in this study found that Cost per Loan Ratio (CPLR) does not affect Return on Assets (ROA) but affect Net Interest Margin (NIM) in conventional banking in Indonesia from 2018 to 2022. This aligns with Ghosh & Mondal's (2022) research, indicate relationship between CPLR and NIM, but contrary findings regarding CPLR's impact on ROA.

Supporting evidence for CPLR's lack of impact on ROA comes from Hasibuan et al. (2021), suggesting that despite increasing loan asset costs, it does not reduce asset effectiveness in generating profits. Various factors such as operational efficiency, portfolio diversification, and appropriate risk management strategies contribute to these findings, indicating that loan asset costs are not the dominant factor in determining asset return rates. Consequently, companies or financial institutions can focus their efforts on other more impactful factors affecting return on assets.

On the other hand, studies by Shittu & Abdulkadir (2023) and Garba & Kurawa (2014) support CPLR's impact on NIM, indicating that higher CPLR leads to a decrease in NIM. This suggests that loan acquisition costs can affect a bank's net profit margin because higher costs reduce the profit margin achievable from loan assets. Therefore, managing loan acquisition costs is crucial in influencing financial performance in terms of NIM.

CONCLUSION

This study aims to test whether independent variables such as non-performing loans, capital adequacy ratio, loss loan provision ratio, cost per loan ratio affect the dependent variable, namely profitability as measured by return on assets and net interest margin at 35 conventional banks listed on the Indonesia Stock Exchange in the period 2018-2022, Based on the analysis and discussion in the previous section, the following conclusions can be drawn:

1) Non-Peforming Loan has a significant effect on Return on Assets but has no effect on Net Interest Margin.
2) Capital Adequacy Ratio has no significant effect on Return on Assets but affects Net Interest Margin.
3) Loan Loss Provison Ratio has a significant effect on Return on Assets but has no effect on Net Interest Margin.
4) Cost Per Loan Ratio does not significantly affect Return on Assets but affects Net Interest Margin.

Based on the analysis and discussion in the preceding sections, it can be concluded that Non-Performing Loans (NPL) and Loan Loss Provision Ratio (LLPR) significantly affect the dependent variable Return on Assets (ROA). Additionally, Capital Adequacy Ratio (CAR) and Cost per Loan Ratio (CPLR) LLPR significantly influence the dependent variable Net Interest Margin (NIM) in 35 conventional banks listed on the Indonesia Stock Exchange during the period 2018-2022. Referring to these findings, the managerial implications of this research are as follows:

1) For Companies

Financial managers in banking companies should consider factors influencing profitability to ensure optimal performance. They must pay attention to banking risk management based on this research, aiming to keep NPL, CAR, LLPR, and CPLR values at a minimum. Considering these four risk management variables have a negative relationship with banking profitability. Managers should assess loans given to potential borrowers by evaluating each customer's risk profile, particularly focusing on their ability to repay loans and set interest rates. Additionally, banks should maintain an adequate capital value, as a high CAR may lead to missed profit opportunities.

2) For Investors

Investors consider various indicators when making investment decisions, including a company's profitability influenced by risk management factors. They are more inclined to invest in companies with effective risk management practices. Armed with this information, investors can choose banks with effective risk management strategies that enhance their profitability

REFERENCES

Ahmeti, Y., Kalimashi, A., Ahmeti, A., & Ahmeti, S. (2023). The Capital Structure Determinants of Banking Sector of Western Balkan Countries. *Ekonomika , 102*(1), 102–121. https://doi.org/10.15388/Ekon.2023.102.1.6

Akomeah Jacob, Agumeh Raymond, & Frimpong Siaw. (2020). Credit Risk Management and Financial Performance of Listed Banks in Ghana. *Research Journal of Finance and Accounting*. https://doi.org/10.7176/rjfa/11-6-05

Al Zaidanin, J. S., & Al Zaidanin, O. J. (2021). The impact of credit risk management on the financial performance of United Arab Emirates commercial banks. *International Journal of Research in Business and Social Science (2147- 4478)*, *10*(3), 303–319. https://doi.org/10.20525/ijrbs.v10i3.1102

Bhattarai, Y. R. (2016). EFFECT OF CREDIT RISK ONTHE PERFORMANCE OF NEPALESE COMMERCIAL BANKS. *Prestige E-Journal of Management and Research*, *3*(1).

Budhathoki, P. B., Rai, C. K., Lamichhane, K. P., Bhattarai, G., & Rai, A. (2020). The Impact of Liquidity, Leverage, and Total Size on Banks' Profitability: Evidence from Nepalese Commercial Banks. *Journal of Economics and Business*, *3*(2). https://doi.org/10.31014/aior.1992.03.02.219

Dayana, P., Analisis Risiko Pasar, ;, Kredit, R., & Periode, R. O. D. K. M. T. K. K. B. P. D. S.-I. (2019). Analisis Risiko Pasar. *Risiko Kre….. 3798 Jurnal EMBA*, *7*(3), 3798–3807.

Echobu, J., & Nkiru Philomena, O. (2019). Credit Risks and Financial Performance of Nigerian Banking Industry. In *Amity Journal of Finance ADMAA* (Vol. 4, Issue 1).

Ekaningtias, D., & Shonhadji, N. (2017). *Effect of Loan Loss Provision, Number of Credits Given and Foreign Ownership on Corporate Financial Performance*. *14*. http:www.serialsjournal.com

Fadun, O. S., & Silwimba, P. (2023). Does credit risk management impact the financial performance of commercial banks? *International Journal of Business Ecosystem & Strategy (2687-2293)*, *5*(2), 55–66. https://doi.org/10.36096/ijbes.v5i2.415

Fakultas, J., Akuntansi, P., Ekonomi, F., Kunci:, K., Inflasi, R., Kredit, R., Likuiditas, R., & Profitabilitas, ; (2022). JURNAL PRODUKTIVITAS Kredit (NPL) dan Risiko Likuiditas (LDR) Terhadap Profitabilitas (ROA) di Masa Pandemi Covid-19 Pada Bank BUMN Periode 2018-2020 Nur Rantika Octavia; [2] Gusganda Suria Manda. I N F O A R T I K E L A B S T R A K. In *Jurnal Produktivitas* (Vol. 9). www.openjurnal.unmuhpnk.ac.id/index.php/jp

Fanny, F., Wijaya, W., Indahwati, I., Silcya, M., Wijaya, V. C., & Ginting, W. A. (2020). Analisis Pengaruh NPL, NIM, LDR, Dan CAR Terhadap Profitabilitas (ROA) Pada Bank Pemerintah Dan Bank Konvensional Yang Terdaftar Di BEI. *Profita : Komunikasi Ilmiah Akuntansi Dan Perpajakan*, *13*(1), 112–122. https://doi.org/10.22441/profita.2020.v13i1.009

Febri Nanda Marchela, & Purwanto Widodo. (2023). Determinants of non-performing loans in Regional Development Banks (BPD) in Indonesia. *International Journal of Research in Business and Social Science (2147- 4478)*, *12*(3), 263–271. https://doi.org/10.20525/ijrbs.v12i3.2573

Garba, S., & Kurawa, J. M. (2014). *An Evaluation of the effect of Credit Risk Management (CRM) on the profitability of Nigerian Banks*. https://www.researchgate.net/publication/308723300

Ghosh, K., & Mondal, A. (n.d.). *Credit Risk Management and Financial Performance of Indian Commercial Banks: A Study*. http://publishingindia.com/ijfm/

Gremi, 2013. (2013). *Macroeconomic Factors That Affect the Quality of Lending in Albania*. www.iiste.org

Hanifa, A., Noman, M., Pervin, S., Chowdhury, M. M., & Banna, H. (2015). The Effect of Credit Risk on the Banking Profitability: A Case on Bangladesh. *Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc*, *15*.

Huizinga, H., & Laeven, L. (2019). *Working Paper Series The procyclicality of banking: evidence from the euro area*. https://doi.org/10.2866/37202

Kirimi, P. N., Kariuki, S. N., & Ocharo, K. N. (2022). Financial soundness and performance: evidence from commercial banks in Kenya. *African Journal of Economic and Management Studies*, *13*(4), 651–667. https://doi.org/10.1108/AJEMS-11-2021-0499

Korompis Ria, Murni Sri, & Untu Victoria. (2020). *iogi2018,+8.1.+Ria+Revianty+Nevada+Korompis.OK*.

Marinković, S., & Radović, O. (2014). Bank net interest margin related to risk, ownership and size: An exploratory study of the serbian banking industry. *Economic Research-Ekonomska Istrazivanja* , *27*(1), 134–154. https://doi.org/10.1080/1331677X.2014.952114

Menicucci, E., & Paolucci, G. (2016). The determinants of bank profitability: empirical evidence from European banking sector. *Journal of Financial Reporting and Accounting*, *14*(1), 86–115. https://doi.org/10.1108/jfra-05-2015-0060

Nugrahaning, S., Wahyudi, S., & Manajemen, J. (2016). ANALISIS PENGARUH NPL DAN LDR TERHADAP NIM DENGAN ROA SEBAGAI INTERVENING, PENGARUH NPL TERHADAP NIM DENGAN CAR DAN ROA SEBAGAI INTERVENING, SERTA BOPO TERHADAP NIM BANK GO PUBLIC DI INDONESIA PERIODE 2011-2015. *DIPONEGORO JOURNAL OF MANAGEMENT*, *5*(4), 1–9. http://ejournal-s1.undip.ac.id/index.php/dbr

Parhusip, G., & Cakranegara, P. A. (2021a). IDEAS: Journal of Management and Technology THE IMPACT OF NIM, BOPO, LDR, AND SIZE TOWARD RETURN ON ASSETS (ROA) AND ITS RELATIONS WITH TECHNICAL EFFICIENCY ON BANKS (BUKU 4) IN INDONESIA. *IDEAS: Journal of Management and Technology*, *1*(2), 47–61. http://e-journal.president.ac.id/presunivojs/index.php/IDEAS

Primalia, K. (2022). *FACULTY OF ECONOMICS AND BUSINESS TRISAKTI UNIVERSITY THESIS THE IMPACT OF INTERNAL FACTORS IN PROFITABILITY CONVENTIONAL BANKING LISTED IN INDONESIA STOCK EXCHANGE*.

Purnamasari, I., & Bisnis, P. M. (2016). PENGARUH RISIKO KREDIT TERHADAP PROFITABILITAS (Studi Kasus Pada Bank Umum Swasta Nasional Devisa Tahun. In *Journal of Business Management and Enterpreneurship Education* | (Vol. 1, Issue 1).

Putri, J. Y., & Gandakusuma, I. (n.d.). Analisis Pengaruh Risiko Kredit, Risiko Likuiditas, serta Risiko Operasional Terhadap Kinerja Perbankan: Studi Kasus pada Bank Umum Konvensional yang Terdaftar di Bursa Efek Indonesia Periode 2016-2020 Analysis of the Impact of Credit Risk, Liquidity Risk, and Operational Risk on Banking Performance: Case Studies of Conventional Commercial Banks Listed on the Indonesia Stock Exchange for the 2016-2020 Period. In *Jurnal Manajemen dan Usahawan Indonesia •* (Vol. 46, Issue 1).

Ramadanti, F., & Eni Setyowati. (2022). Pengaruh NPL, LDR, BOPO dan Nim Terhadap Roa Pada PT. Bank Mandiri (Persero) Tbk Tahun 2013-2021 1). *Jurnal Ekombis Review*, *10*(2), 695–706. https://doi.org/10.37676/ekombis.v10i12

Ritesh Shresta. (2017). *The impact of credit risk management on profitability: Evidence from Nepalese commercial banks Ritesh Shrestha*.

https://ssrn.com/abstract=2938546Electroniccopyavailableat:https://ssrn.com/abstract=2938546Electroniccopyavailableat:https://ssrn.com/abstract=2938546

Rmp, M., Kamaliah,), Nurmayanti, P., Bank, P., & Pekanbaru, S. K. (2014). *FAKTOR-FAKTOR YANG MEMPENGARUHI NET INTEREST MARGIN (BANK GO PUBLIK TAHUN 2008 S/D 2011): Vol. VI* (Issue 3).

Rohmiati, E., Woelan Soebroto, N., Tugas Akhir Prodi Keuangan dan Perbankan, M., Akuntansi, J., Negeri Semarang, P., Jurusan Akuntansi, D., & Negeri Semarang PENDAHULUAN Latar Belakang Masalah, P. (2019). ANALISIS PENGARUH BOPO, NPL, NIM, DAN LDR TERHADAP PROFITABILITAS PADA BANK UMUM DI INDONESIA PERIODE 2012-2017. In *keunis Majalah Ilmiah-ISSN* (Vol. 7, Issue 1). www.kontan.co.id

Rubaiyath, A., & Lalon, R. M. (2022). Investigating the Impact of Bank-specific Determinants on Stock Price of Listed Commercial Banks: Evidence from Emerging Economy. *International Journal of Economics and Financial Issues*, *13*(4), 134–142. https://doi.org/10.32479/ijefi.14654

Shittu, I., & Abdulkadir, H. (2023). THE MODERATING EFFECT OF COST PER LOAN ASSET RATIO ON THE RELATIONSHIP BETWEEN CREDIT RISK AND FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA. *International Journal of Banking and Finance*, *18*. https://doi.org/10.32890/ijbf2023.18.1.5

Siddique, A., Khan, M. A., & Khan, Z. (2022). The effect of credit risk management and bank-specific factors on the financial performance of the South Asian commercial banks. *Asian Journal of Accounting Research*, *7*(2), 182–194. https://doi.org/10.1108/AJAR-08-2020-0071

Sinaga, V. M., Tri, S., Ekonomi, W., Keuangan, D., Perbankan, F., Ekonomi, D., Bisnis, U., & Brawijaya, I. (2023). *DETERMINAN NET INTEREST MARGIN PERBANKAN DI INDONESIA (STUDI KASUS: BANK BRI)*. https://doi.org/10.21776/csefb.2023.02.3.07

Sunaryo, D. (2020). IJJM Ilomata International Journal of Management The Effect Of Capital Adequacy Ratio (CAR), Net Interest Margin (NIM), Non-Performing Loan (NPL), and Loan To Deposit Ratio (LDR) Against Return On Asset (ROA) In General Banks In Southeast Asia 2012-2018. *Ilomata International Journal of Management*, *1*(4), 149–158. https://www.ilomata.org/index.php/ijjm

Weinechita Pelealu, I., & Worang, F. G. (2018). ANALYSIS THE EFFECT OF LOAN LOSS PROVISION ON BANK PROFITABILITY ANALISA DAMPAK CADANGAN KERUGIAN PENURUNAN NILAI TERHADAP PROFITABILITAS BANK. *Analysis The…… 3278 Jurnal EMBA*, *6*(4), 3278–3287.

Widya, P., & Purwanto, K. A. (2019). ANALISIS PENGARUH RISIKO KREDIT TERHADAP PROFITABILITAS. *DIPONEGORO JOURNAL OF ACCOUNTING*, *8*(1), 1–13. http://ejournal-s1.undip.ac.id/index.php/accounting

Yeasin, H. M. (2022). Impact of credit risk management on financial performance: A study of commercial banks in Bangladesh. In *Interdisciplinary Journal of Applied and Basic Subjects* (Vol. 2, Issue 1). www.visnav.in/ijabs/