Accounting Analysis Journal 11(3) (2022) 167-175

AAJ ACCOUNTING ANALYSIS JOURNAL

Accounting Analysis Journal

https://journal.unnes.ac.id/sju/index.php/aaj

What Factors Determine Banking Profitability In Indonesia During The Covid-19 Pandemic?

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ARTICLE INFO

Article History:
Submitted January 7th, 2023
Revised January 21st, 2023
Accepted March 30th, 2023
Published April 7th, 2023

Keywords:
Profitability; Return on Assets; Return on Equity; Net Interest Margin; Non-Performing Loan

ABSTRACT

Purpose : The banking industry faced significant challenges during the COVID-19 pandemic. Banking performance is being scrutinized for interested parties to evaluate future business projections. The purpose of this study is to analysis the profitability of Indonesian banks during the COVID-19 pandemic and to investigate what factors influence the profitability.
Method : This research is quantitative research and uses panel data. The research sample is a banking company listed on the Indonesia Stock Exchange with a two-year observation period (2020-2021), that is, during the COVID-19 pandemic. There are 49 banks and unbalanced panel data obtained from 97-unit analysis. Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin are all used to measure banking profitability (NIM). The documentation method was used to collect data. The data was analyzed using descriptive statistics and multiple regression analysis with random effect model.
Findings : The result indicate that only NPL has a significant negative effect on ROA and ROE, according to the findings. Meanwhile, even though it is negative, CAR has a significant impact on ROA and ROE. The effects of size and liquidity on ROA and ROE were not significant. Similarly, there is no significant evidence of size, liquidity, CAR, or NPL on the Indonesian banking NIM. It can be concluded that only NPL and CAR have a significant impact on Indonesian banking profitability.
Novelty : The novelty in this paper is an analysis of banking profitability in Indonesia during the COVID-19 pandemic (2020-2021) and a study of the factors that influence it. Unbalanced data panel regression with random effect model was used to analyze the data.

INTRODUCTION

The global COVID-19 pandemic has influenced the financial industry. Bank productivity and stock prices have both declined significantly (Almonifi et al., 2021). The effect of the pandemic is indeed different from that of the 1998 monetary crisis because Indonesia now has better infrastructure (Cakranegara, 2020). During the COVID-19 pandemic, which is still under government control, the banking intermediary function has begun to grow positively, though not significantly. The Financial Services Authority (OJK) reported that bank credit increased by IDR 67.39 trillion in June 2021, growing by 0.59% year on year or 1.83% year on year to IDR 5,581.8 trillion (cnbcindonesia.com). As a result, the challenges to Indonesia's banking performance became even more severe during the pandemic. OJK reported that the profitability of Conventional Commercial Banks (CCB) in 2020 was maintained, despite a significant decrease in Return on Assets (ROA) from 2.74% to 1.59%. The Net Interest Margin (NIM) fell as well, from 4.91% to 4.45%.

Banking financial performance as measured by profitability has been studied empirically by many scholars (Garcia & Trindade, 2019). Financial performance reflects the health of the bank and shows business continuity (Egbunike & Okerekeoti, 2018). There are many measures to determine the level of bank profitability, including ROA (Bansal et al., 2018; Garcia & Trindade, 2019; Saif-Alyousfi & Saha, 2021), NIM (Menicucci & Paolucci,

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DOI 10.15294/aaj.v11i3.64673 p-ISSN 2252-6765 e-ISSN 2502-6216

2016).

The effect of the pandemic on banking financial performance warrants further investigation. Many studies on the determinants of banking performance have been conducted with varying degrees of success. One of the factors that influence profitability is the size of the company. The findings show that size has a positive effect on ROA (Bolarinwa & Soetan, 2019). However, there are findings of a negative effect (Yadav et al., 2021) and an insignificant effect (Bougatef, 2017).

Liquidity has a significant impact on financial performance as well (Fidanoski et al., 2018; Saif-Alyousfi & Saha, 2021). Liquidity is a significant predictor of bank performance. Because traditional banks' primary business is lending, which generates interest income for commercial banks, a lower level of liquidity (a higher loan to deposit ratio) is likely to increase bank profitability (Budhathoki et al., 2020). Many researchers have discovered that liquidity has a positive effect on ROE (Hongli et al., 2019). Even though the relationship between liquidity and ROE was weak, the same results were obtained (Charmler et al., 2018). Other findings show the inverse relationship, that liquidity has a negative impact on profitability (Kingu et al., 2018).

Because credit is the primary source of bank income, increased credit will present opportunities for increased profits (H. H. Nguyen et al., 2022). Higher loans to creditors, on the other hand, expose the bank to potential losses. Non-performing loans (NPLs) are important factors in determining a bank's profitability (Saif-Alyousfi & Saha, 2021). A high NPL will reduce ROA (Ozurumba, 2016). NPLs have a significant and negative impact on the profitability of commercial banks in Tanzania (Kingu et al., 2018). Bank management must be able to manage credit as effectively as possible.

Capital can also impact bank profitability. The total capital to asset ratio will be able to increase the company's value and vice versa (Pham et al., 2022). Bank capitalization has a significant impact on profitability (Bansal et al., 2018; Öhman & Yazdanfar, 2018). Capital, as measured by the Capital Adequacy Ratio (CAR), has been shown to have a positive effect on ROA (Brastama & Yadnya, 2020; Nnamdi et al., 2021; Razak et al., 2018). However, there is evidence that capital has no significant impact on ROA (Bougatef, 2017).

This study aims to examine the profitability of Indonesian banks during the pandemic and to determine which factors influenced it the most. The determinants in question are bank size, liquidity, capital, and non-performing loans. Previous research has shown that the effects of size, liquidity, capital, and NPLs on profitability vary. Were Indonesian banks able to maintain a reasonable level of profitability during the pandemic? Data for 2020-2021 are used to examine key factors influencing the profitability of Indonesian banks.

This study's contribution is the most recent study on the impact of the COVID-19 pandemic on banking performance in Indonesia, specifically on profitability achieved over the last two years (2020-2021). It is important to analyze the factors that most influence profitability so that banks can manage their resources to continue to deliver the best results. Prior to the COVID-19 pandemic, Indonesian banking faced significant external challenges, namely the presence of features provided by rapidly developing financial technology services.

Accounting-based research and economics-based research are two approaches to measuring banking performance that are widely used (Olson & Zoubi, 2011). Accounting research focuses on how information in financial statements is used. ROA, ROE, and NIM are examples of performance indicators. An economic-based approach refines this approach's limitations (Talbi & Bougatef, 2018). As a result, the measurement of banking performance becomes more comprehensive. Financial and economic factors are used in tandem. Performance (profitability) factors can be divided into two categories: internal and external factors. Internal factors are based on things that bank management can control. Meanwhile, external factors are beyond our control (Al-Harbi, 2019; Kassem & Sakr, 2018). Empirical evidence suggests that monetary policy can have a significant impact on a bank's financial performance (H. H. Nguyen et al., 2022).

The COVID-19 pandemic has had a significant impact on the financial performance of the banking world worldwide. Bank output and share prices fell in the Gulf Cooperation Council (GCC) countries, particularly in conventional banks (Almonifi et al., 2021). The COVID-19 outbreak has thrown the world into an "unprecedented emergency" (H. H. Nguyen et al., 2022).

Banks that have large assets, even in a pandemic situation, should still be able to run their business well because they have sufficient resources. Banks with large assets can manage priority service strategic steps during a pandemic. Bank size has a positive effect on performance because larger banks can use economies of scale to improve their performance (H. H. Nguyen et al., 2022). Previous researchers found that increasing size can positively and significantly increase ROA (Bolarinwa et al., 2019; Egbunike & Okerekeoti, 2018; Fidanoski et al., 2018; Menicucci & Paolucci, 2016). Size has a significant effect on ROE (Ali & Puah, 2019). However, different studies have found that bank size has no significant effect (Bougatef, 2017) and may even have a negative effect (Saif-Alyousfi & Saha, 2021)(Saif-Alyousfi & Saha, 2021).

Liquidity is a factor that can determine the extent to which a bank can serve customer needs in the form of withdrawing savings or providing financing. The better the bank's liquidity, the more likely the bank will be able to gain the trust of customers and ultimately be able to maintain good performance. Especially during a pandemic, banks must be able to maintain good liquidity. Bank liquidity influences bank profitability. The facts about the relationship between bank liquidity and profitability are contradictory (Budhathoki et al., 2020). Previous research has discovered that liquidity has a positive effect on ROA (Bougatef, 2017; Egbunike & Okerekeoti, 2018; Fidanoski et al., 2018; Saif-Alyousfi & Saha, 2021). Banks with a high level of liquidity will provide opportunities for banks to increase their profits (H. H. Nguyen et al., 2022). Other research has found that liquidity has a positive and significant effect on NIM (Talbi & Bougatef, 2018) and RNIM (Fidanoski et al., 2018). Another study discovered a non-significant relationship between liquidity and ROA (Bolarinwa & Soetan, 2019) and ROE (Alarussi & Alhaderi, 2018).

The pandemic presents formidable challenges. Banks are required to be able to manage their resources effectively and efficiently. The capital adequacy ratio must be managed as well as possible so that it will not disrupt bank operations. Banks can still serve customers as well as possible. Capital adequacy refers to having enough capital to absorb any potential risks that a bank may face (Trung, 2021). Strictly enforced capital adequacy controls the bank's financial stability and soundness. This ratio measures the percentage of bank assets available to meet future lender obligations and aims to identify the potential for various types of risk associated with capital retention. According to previous study (Pham et al., 2022), the relationship between capital structure and profitability produces mixed and contradictory results. Positive relationships are more common in developed countries, while mixed relationships are more common in developing countries. Previous research has shown that CAR has a positive effect on ROA and RNIM (Fidanoski et al., 2018). Other researchers obtained similar results (Bansal et al., 2018; Öhman & Yazdanfar, 2018; Saif-Alyousfi & Saha, 2021). However, there are results indicating that capital has no significant impact on ROA (Bougatef, 2017). Furthermore, there is empirical evidence that capital influences NIM (Bougatef, 2017).

NPL shows the bank's risk in facing losses. In a pandemic condition, this risk will be even greater. Therefore, NPL must be managed properly. Banks must try to carry out special strategies so that debtors can complete payments properly. The level of profitability is also determined by the bank's NPL level. NPL shows the failure rate of payment of receivables by the debtor according to the payment deadline. The greater the NPL will reduce the bank's potential to earn significant profits (D. T. Nguyen & Le, 2022). The results of the study provide empirical evidence that NPL has a significant negative effect on ROA (Saif-Alyousfi & Saha, 2021). The level of profitability is also determined by the bank's NPL level. NPL represents the failure rate of the debtor to pay receivables by the payment deadline. The greater the NPL, the less likely the bank is to earn significant profits (D. T. Nguyen & Le, 2022). The study's findings provide empirical evidence that NPL has a significant negative effect on ROA (Saif-Alyousfi & Saha, 2021). The same findings indicate that a high NPL level reduces financial performance (Ozurumba, 2016). Meanwhile, other findings indicate that non-performing loans have no effect on the financial performance of Islamic banks (Ichsan et al., 2021).

This study aims to examine the profitability of banks in Indonesia during the COVID-19 pandemic and the factors that influence it. Thus, the main factors influencing the financial performance (profitability) of banks in Indonesia during the COVID-19 pandemic will be revealed. The research framework is depicted in figure 1. The following is the research hypothesis developed based on the description and research model:

H_1: Size, liquidity, capital, and non-performing loans are the determining factors for Indonesian banking ROA during the COVID-19 pandemic

H_2: Size, liquidity, capital, and non-performing loans are the determining factors for Indonesian banking ROE during the COVID-19 pandemic

H_3: Size, liquidity, capital, and non-performing loans are the determining factors for Indonesian banking NIM during the COVID-19 pandemic

RESEARCH METHODS

This research is quantitative research and uses panel data. The research sample is a banking company listed on the Indonesia Stock Exchange with a two-year observation period (2020-2021), that is, during the COVID-19 pandemic. There are 49 banks and unbalanced panel data obtained from 97-unit analysis.

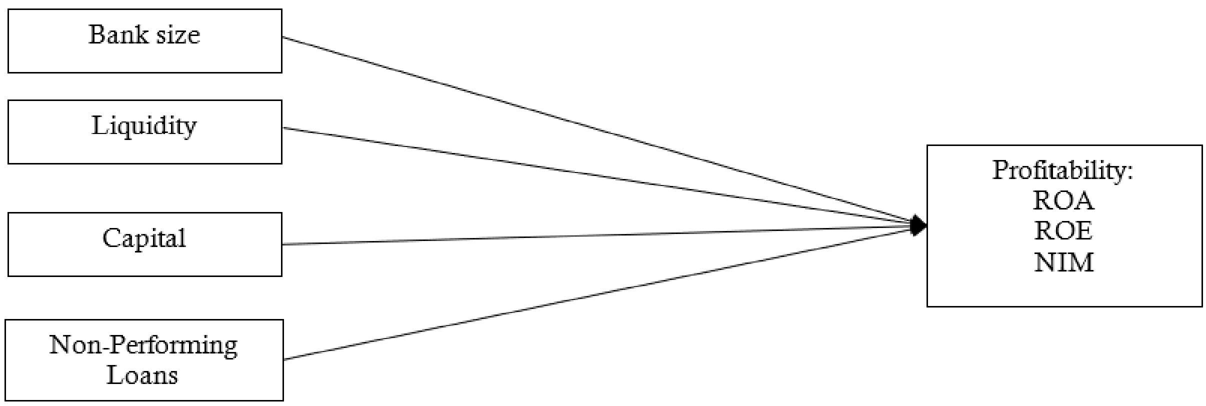

Figure 1. Research model

Profitability, as measured by ROA (Return on Assets), ROE (Return on Equity), and NIM, was the dependent variable in this study (Net Interest Margin). ROA was calculated by dividing profit before tax by total assets. The ratio of profit before tax divided by capital was used to calculate ROE. The net interest margin (NIM) was calculated by dividing net interest income by the average financing receivables. Meanwhile, bank size, liquidity, capital, and non-performing loans were the independent variables. The total assets of a bank are used to calculate its size. The Loan to Deposit Ratio (LDR) is used to calculate liquidity, which is the ratio of loans divided by total third-party funds. The Capital Adequacy Ratio (CAR), or the ratio of bank capital to risk-weighted assets, is used to calculate bank capitalization. Non-performing loans are calculated by dividing the number of bad loans by the total number of loans.

Documentation in the form of financial reports and annual reports from each bank is used for data collection. The descriptive analysis and multiple regression analysis methods were used to analyze the data. Descriptive analysis is used to explain the performance of Indonesian banks. The factors that determine the profitability of Indonesian banks during the COVID-19 pandemic were investigated using multiple regression analysis. The model feasibility test is carried out first, followed by an analysis of the hypothesis testing results. The level of significance value must be less than 0.05 for the proposed research hypothesis to be accepted.

The stages of panel data regression analysis carried out are determine a more appropriate model by determining the estimation method (fixed effect or random effect). After testing with the Hausman Test, a more appropriate model is obtained, namely the random effect. Finally, regression testing (goodness of fit, Z-test, and coefficient values) is performed. The regression models are shown by equation 1 to 3, notation e is an error.

$$ROA = \alpha + \beta_1 SIZE + \beta_2 LDR + \beta_3 CAR + \beta_4 NPL + e \quad \text{.......} 1$$

$$ROE = \alpha + \beta_1 SIZE + \beta_2 LDR + \beta_3 CAR + \beta_4 NPL + e \quad \text{.......} 2$$

$$NIM = \alpha + \beta_1 SIZE + \beta_2 LDR + \beta_3 CAR + \beta_4 NPL + e \quad \text{.......} 3$$

RESULTS AND DISCUSSIONS

The Profitability of Indonesian Banks During COVID-19 Pandemic

The banking industry in Indonesia has felt the effects of the COVID-19 pandemic. During the pandemic (2020-2021), all three profitability measures (ROA, ROE, and NIM) decreased significantly. During pandemic the average of ROA, ROE, and NIM of Indonesian banking are 0.0041 or 0.04%, 0.0313 or 3.13%, and 0.0454 or 4.54%. Before pandemic (2018-2019) the average of ROA, ROE, and NIM of Indonesian banking are 0.0107 or 1.07%, 0.0636 or 6.36%, and 0.0530 or 5.3%. With the presence of the existing financial technology industry, bank management had faced several challenges prior to the pandemic. Banking services compete directly with fintech services for the attention of customers. These difficulties become even more severe during a pandemic. Restrictions on people's movements force the banking industry to innovate quickly in the use of information technology to ensure that services to customers continue to run smoothly.

The next analysis presents different tests of profitability before and during the pandemic. The profitability data used is 2019 (before the pandemic) and 2020 (during the pandemic). The results indicated that there were significant differences in the ROA and NIM of Indonesian banks before and during the pandemic. The results of the ROA paired t-test for 2019 and 2020 show a t value of 2.2817 and a $Pr (|T| > |t|) = 0.0276$. The results of the analysis confirmed that there were significant differences in the ROA of Indonesian banks before and during the pandemic. The results of the Indonesian banking ROE paired t test in 2019 and 2020 show that the t value is 0.8647 and $Pr (|T| > |t|) = 0.3921$. The results of the analysis provide evidence that there is no significant difference between ROE before and during the pandemic. Indonesian banking achieved the same ROE in 2019 and 2020. The next result is the paired t test of Indonesian banking NIM in 2019 and 2020. The results show that the value of $t = 2.9280$ and the value of $Pr (|T| > |t|) = 0.0055$. This means that there are significant differences in NIM achieved by Indonesian banks before and during the COVID-19 pandemic.

Descriptive Statistic of Research Variables

Table 1 shows the descriptive statistic of research variables. Indonesian banking profitability is very diverse. There are banks that have negative ROA and ROE which means bearing losses. On the other hand, there are banks that can achieve ROA and ROE that exceed the good category limits (more than 0.0516 or 5.16%). On average, ROA and ROE of Indonesian banking are still very low, only 0.0041 or 0.04% and 0.0313 or 3.13%. This means that the ability of Indonesian banks to generate profits is very weak and will face tough challenges. Likewise, with the NIM of Indonesian banking which shows an average of 4.54%. Indonesian banking must be more creative in providing services to customers to generate better interest income.

Size as measured by total assets also shows the diversity of bank sizes in Indonesia. There are banks with very small assets, but there are banks with very large total assets. This has an impact on the ability of banks to manage

Table 1. Descriptive statistic of research variables

Research variables	Min	Max	Mean	Dev. Std.
ROA	-.1475	.0516	.0053464	.0293701
ROE	-.9544	.8461	.0335577	.1955324
NIM	.0022	.1352	.0453979	.0221649
SIZE	1441234	1.73e+09	1.70e+08	3.69e+08
LDR	.2967	24.198	.8510258	.3200352
CAR	.1159	20.157	.3133299	.2693941
NPL	.0008	.2227	.0358887	.0296756

Table 2. The Factors Determine ROA of Indonesian Banking During COVID-19 Pandemic

Independent Variable	Coefficient	z	P>|z|
Bank size	1.46e-11	1.91	0.056
Loan to deposit ratio	.013879	1.37	0.171
Capital adequacy ratio	.0013909	0.11	0.909
Non-performing loan	-.3300785	-3.49	0.000

their assets to generate better profits. Indonesian banking LDR is included in the healthy category during the pandemic. The average LDR is 85.37% which means it is in the range of 78-92% LDR which can be said to be healthy in general. Likewise with the CAR that Indonesian banks can maintain the minimum limit of CAR determined by applicable regulations (must be more than 8%). The average CAR of banks in Indonesia is 31.95% which means above the required 8%. Indonesian banking has sufficient capital to carry out its role properly.

During the pandemic, Indonesia's banking NPL was still relatively safe because it was still below the maximum limit of 5%. The average NPL is 3.59%. This means that Indonesian banks can maintain non-performing loans so as not to disrupt banking performance in general. Even so, there are banks that have an NPL of 22.27% (maximum value) so they must be more careful, especially in distributing financing.

The Results of Hypothesis Testing

The results of hypothesis testing are presented in table 2, table 3 and table 4 below. Table 2 indicates that NPL have a negative and significant effect on ROA. Bank size influence ROA positive and significantly. LDR and CAR had no significant effect on ROA during the pandemic. Table 3 shows nearly identical results. Only NPL have a discernible and negative impact on ROE. Meanwhile, size, LDR and CAR have no discernible effect on ROE. In addition (table 4), there is only NPL can determine NIM of the bank. Size, LDR, and CAR have a significant value greater than 0.05, indicating that there is no significant effect of size, LDR, and CAR on NIM.

The Factors Determine Bank's ROA During The COVID-19 Pandemic

The results of this study indicate that capital and liquidity have no significant impact on ROA during COVID-19 pandemic. CAR and LDR had a positive impact on ROA but insignificant. Bank size and NPL have a significant effect on ROA during the COVID-19 pandemic. The bank size has positive effect on its ROA in Indonesia. The amount of assets owned can be used by banks to significantly increase ROA. During the pandemic, bank management faced numerous challenges, making it impossible to demonstrate adequate profitability performance. This finding in line with previous findings, which indicated that bank size had a more positive effect on profitability (Bolarinwa et al., 2019; Bolarinwa & Soetan, 2019; Menicucci & Paolucci, 2016). However, the findings don't support previous research that found no significant effect of size on profitability (Bougatef, 2017; Öhman & Yazdanfar, 2018).

Bank liquidity has also been shown not to have a significant effect on ROA of the bank during the COVID-19 pandemic. This finding is consistent with previous research findings (Bolarinwa & Soetan, 2019; Lim & Rokhim, 2020; Zainudin et al., 2018). The ability of a bank to maintain liquidity has no effect on its profitability. The availability of liquidity should make it safer for banks to innovate to maximize profits. The findings of this study differ from many previous findings that indicate a positive effect of liquidity on profitability (Bougatef, 2017; Egbunike &

Table 3. The Factors Determine ROE of Indonesian Banking During COVID-19 Pandemic

Independent Variable	Coefficient	z	P>|z|
Bank size	7.73e-11	1.60	0.110
Loan to deposit ratio	-.0879295	-1.37	0.169
Capital adequacy ratio	.0775885	1.01	0.314
Non-performing loan	-2965337	-4.96	0.000

Table 4. The Factors Determine NIM of Indonesian Banking During COVID-19 Pandemic

Independent Variable	Coefficient	z	P>|z|
Bank size	6.65e-12	1.14	0.254
Loan to deposit ratio	.0067732	0.88	0.379
Capital adequacy ratio	.0128143	1.38	0.167
Non-performing loan	-.2296364	-3.19	0.001

Okerekeoti, 2018; Fidanoski et al., 2018; Saif-Alyousfi & Saha, 2021).

During the COVID-19 pandemic, the capital adequacy ratio has no significant impact on ROA. Profitability should improve because of CAR. Adequate bank capital will enable banks to penetrate even in the event of a pandemic. The bank's management strives to innovate with the capital available to provide quality services to customers in the form of financing and savings. Bank management attempts to persuade customers that banks can perform well during the pandemic. This finding supports the findings of previous studies (Fidanoski et al., 2018; Talbi & Bougatef, 2018).

NPLs have been shown to have a negative and significant impact on profitability ROA during the pandemic. These findings are consistent with prior theory and research (Saif-Alyousfi & Saha, 2021). The lower the NPL, the higher the bank's profitability. NPLs reflect the bank's performance in controlling bad loans from customers. A small NPL demonstrates that banks can put pressure on customers to meet their obligations (pay off their debts to the bank). NPLs are a good indicator of a bank's health. The lower the NPL, the better for the bank.

The Factors Determine Bank's ROE During The COVID-19 Pandemic

Bank profitability is an important key indicator because it provides another indicator of financial stability. A high level of profitability will lead to a strong financial system (Parmankulova et al., 2022). Factors that will have an impact on the level of banking profitability are important to study. The results of this study indicate that size, capital, and liquidity have no significant impact on ROE during COVID-19 pandemic. Only NPL have a significant and negative effect on ROE during the COVID-19 pandemic. A low NPL will make a bank achieve a higher ROE level.

This result is different from the opinion of previous researchers who presented a positive effect of capital (O'Connell, 2022). Other empirical evidence also confirms that CAR can positively determine ROE in public sector banks in India (Kantharia & Biradar, 2022). Capital adequacy by banks should have a good impact on bank operations to achieve profit (ROE). The results indicating insignificant influence show that Indonesian banks have not maximized the amount of capital they have. Capital allocation has not been on target.

Previous researchers also argue that is in line with the results of the study that non-performing loans will have a negative impact on profitability (O'Connell, 2022). Other findings indicate that the credit risk ratio has a negative effect on the ROE level of public sector banks in India (Kantharia & Biradar, 2022). The risk of credit extended by the bank to customers indicates the possibility of losses that will be faced by the bank if there is a problem with payment by the customer. NPL indicates the number of non-performing loans.

The results of the study are in line with previous research that there is no significant effect of firm size on ROE. The assets owned by the bank did not have a significant impact on profit. This is possible because of inefficient asset allocation (Youssef et al., 2022). Nevertheless, the effect of bank size on the level of profitability is still mixed with findings. Bank size can determine positively or negatively (Parmankulova et al., 2022). There is a significant effect of size on ROE in banks in Africa (Kyei et al., 2022). The profitability of reinsurance companies in sub-Saharan Africa does not determine by company size (Olarewaju & Msomi, 2022). According to previous study (Pham et al., 2022), there is positive relationship between capital structure and profitability (ROE).

The Factors Determine Bank's NIM During The COVID-19 Pandemic

The results of this study indicate that only NPL that can determine Bank's NIM during COVID-19 pandemic. NPL has a negative impact on NIM. NIM is used to measure the ability of bank management to manage its earning assets to generate net interest income. The greater this ratio indicates the increasing interest income on earning assets managed by the bank. NPL shows an important factor in influencing the NIM of banks in Indonesia. The smaller the NPL level, the bank will be able to increase NIM.

In contrast to previous researchers who found no significant NPL to NIM (Parmankulova et al., 2022). NPL is not a significant determinant of NIM (Kanapiyanova et al., 2022). On the other hand, there is an opinion that the level of profitability will be determined by the NPL (O'Connell, 2022). NPL is a bank specific indicator that shows the possibility of loss from uncollectible channelled financing.

The same findings were obtained by previous researchers that capital adequacy did not have a significant impact on NIM (Parmankulova et al., 2022). Although there are findings that confirm the significant effect of the capital adequacy ratio on NIM (Kanapiyanova et al., 2022). Bank size should also be able to determine bank profitability (Kanapiyanova et al., 2022; Parmankulova et al., 2022). Firm size is a significant predictor of company profitability (Youssef et al., 2022). Size is a factor that has been widely introduced that is able to calculate economic and non-economic indicators in the banking market (O'Connell, 2022).

The Future Research Agenda

Future research can be aimed at analyzing the factors that affect banking profitability in Indonesia during the COVID-19 pandemic by adding a relatively new variable in research, namely financial technology innovation. Not much previous research has examined the effect of financial technology innovation on banking performance. Even though the innovation variable is very important for banks in facing the challenges of very fast technological developments as well as economic and business conditions because of the COVID-19 pandemic. Good internet and mobile banking services are a form of financial technology innovation that can be provided by banks (Khalifaturofi'ah, 2021).

Financial technology innovation refers to the provision of banking services to customers by utilizing technology to make it easier for customers to carry out business transactions. Financial innovation is proven to significantly increase profitability (Khalifaturofi'ah, 2021). Innovation will also increase the value of the company (Olalere et al., 2021). The performance of the financial industry can be improved through innovation and digital transformation strategies (Kurniawan et al., 2021). Financial innovation can make a significant contribution to banking performance in Kenya (Chipeta & Muthinja, 2018).

The results of other studies also indicate that service innovation has the highest significant effect on the company's financial and non-financial performance, followed by process innovation. Marketing and organizational innovation have a long route to contribute to the company's financial performance through innovative and non-financial performance (Islam, 2022). Other findings confirm that mobile banking, internet banking and sms banking have a significant effect on the financial performance of Islamic banks in Indonesia (Syahwildan & Damayanti, 2022).

The research findings also show that the adoption of innovative technologies (e-money transfers, telephone banking, internet banking and internal control) has a positive and significant influence on the competitive advantage of commercial banks in Kenya (Odhiambo & Mang'ana, 2022). His study recommends the use of credit cards to carry out online transactions such as cardless payments to increase access to financial services, Commercial banks consider adapting mobile-based innovative Fintech to increase the overall reach of banking services to the public, commercial banks to incorporate automatic alert systems in case of theft at ATMs and finally, appropriate systems to authenticate user identities are deployed in remote areas to increase security and increase user confidence in using internet technology.

Meanwhile, there are research findings indicating that FinTech innovation reduces bank profitability and asset quality in aggregate, a finding that is more salient for large state-owned commercial banks, it improves the capital adequacy and management efficiency of banks, albeit to a lesser extent for state-owned policy banks and commercial banks (Zhao et al., 2022). In addition, a bank's specific FinTech capabilities, as measured by patent applications and claims, have a similar effect on bank performance. The implication is that in dealing with the development of FinTech, banks should focus more on increasing the capabilities of FinTech technology than the difficulties and what the competition is doing. Small banks can more reliably achieve business process reengineering and innovation by actively working with FinTech companies.

CONCLUSIONS

This study aims to examine the factors that influence bank profitability in Indonesia during the pandemic. Only NPL has a significant negative effect on ROA and ROE, according to the findings. Meanwhile, even though it is negative, CAR has a significant impact on ROA and ROE. The effects of size and liquidity on ROA and ROE were not significant. Similarly, there is no significant evidence of size, liquidity, CAR, or NPL on the Indonesian banking NIM. It can be concluded that only NPLs and CARs have a significant impact on Indonesian banking profitability.

Before the pandemic, the financial industry had begun to adopt information technology. This implies that Indonesian banks have made significant investments in information technology to support their performance. The following research suggestion is an attempt to examine the relationship between bank information technology expenditure levels and banking performance. Innovations in technology-based services have a significant impact on banking performance as well. Customers will find it easier to access banking services, allowing them to conduct transactions more quickly using bank-developed services.

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