The Effect of Corporate Social Responsibility as a Moderating Variable on Determinants of Banking Profitability in Indonesia

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ABSTRACT

This study examined the effect of Corporate Social Responsibility (CSR) as a moderating variable on determinants of a bank's profitability listed in the Indonesia Stock Exchange (IDX). This study used secondary data from banking annual reports listed in IDX during 2018-2021, with a total of 100 data from 25 banking companies that met the purposive sampling criteria. The data were analysed using moderated regression analysis with STATA software. This study found that simultaneously, Non-performing Loan (NPL), Good Corporate Governance (GCG), Third Party Funds (TPF), and Cost Efficiency have a significant impact on profitability. While individually, GCG has a significant negative effect, NPL has an insignificant negative effect, Third Party Funds has a significant positive effect, and Cost Efficiency has a significant negative effect on profitability. Furthermore, this study found that CSR has a positive moderating effect on the relationship between TPF and profitability, but CSR has a negative moderating effect on the relationship between Cost Efficiency and profitability. On the other hand, CSR was unable to moderate the relationship of NPL and GCG to profitability. This study contributes to the literature by suggesting the implementation of CSR not only as a compliance to regulation but also as a strategy to increase banking financial performance.

INTRODUCTION

A solid, effective, and efficient financial system can make the economy withstand internal and external shocks (Bank Indonesia, 2020). Banking as a financial intermediary that connects lenders and borrowers needs to maintain its performance to be able to support economic stability (Bank Indonesia, 2020). The Bank's ability to generate profits reflects the financial performance of the Bank (Berutu, R., & Hermanto). The bank's performance in
managing assets will get better if the profit generated increases (Anggari, N. L. S., & Dana, I. M., 2020). Based on the Banking Industry Profile Report, the performance of Commercial Banks in 2018 was quite good, marked by a ROA of 2.5%. However, in 2019 ROA decreased slightly to 2.44% and decreased again in 2020 at 1.59%. In 2021 the performance of Commercial Banks started to improve again, along with an increase in ROA to 1.84% (OJK, 2022).

In line with global economic trends, public companies are starting to shift their focus from maximizing short-term profits to long-term goals related to sustainability (Gao, W., Li, M., & Zou, C., 2022). In 2017, OJK issued POJK Number 51/POJK.03/2017, where Commercial Banks are required to submit Sustainability Reports (OJK, 2017). The implementation of these reporting practices will be carried out in stages from 2020 to 2025 (OJK, 2017).

Loans extended by banks can become problematic and affect the quality of bank assets, which has an impact on the bank's performance (Partovi, E., & Matousek, R., 2019). An increase in NPL can reduce asset quality, which results in a decrease in bank profitability (Saadaoui, A., & Salah, O. Ben., 2021). Under POJK Number 15/POJK.03/2017, a net NPL of more than 5%, a bank is considered to have potential liquidity difficulties (OJK, 2017). Therefore, banks are required to manage credit risk properly to improve financial performance (Sondakh, J. J., Tulung, J. E., & Karamoy, H., 2021).

The banking industry is required to implement GCG to protect the interests of stakeholders and encourage performance improvement (OJK, 2017). Governance principles serve as a reference in implementing GCG, which includes structure, processes, and outcomes, as stated in the regulations issued by OJK Number 55/POJK.03/2016 (OJK, 2016). Understanding the GCG mechanism by management will encourage company performance so that it can be more effective and efficient (Mochamad, S., et al, 2021).

A bank as an institution that carries out the intermediary function, collects Third Party Funds (TPF) from the public, which are used to fund bank operational activities and extend credit to the community (Sondakh, J. J., Tulung, J. E., & Karamoy, H., 2021). The increase in TPF will increase bank income from interest revenue which will have an impact on increasing company profits (Anggari, N. L. S., & Dana, I. M., 2020).

A healthy bank has an efficient performance, where the bank can generate profits through cost management, which provides value-added and supports bank stability (Lotto, J., 2019). The more efficient a bank is, the lower the costs incurred so that the profits generated by the bank increase (Ayuningrum, A. P., 2021). The cost-efficiency ratio (ER) is an indicator of a bank's level of efficiency, whereas a low ER indicates an efficient bank performance (Safitri, V. I., & Hendrani, A., 2020).

Profitability ratios reflect the results of various policies and operational decisions of the company (Weston, J. F., & Copeland, T. E., 1992). Profitability ratios provide an understanding of how well a company uses its resources to generate profits and shareholder value (Gessinger, G. H., 2009). Profitability shows the company's ability to benefit from the amount of funds invested in overall assets (Rosella, & Syah, T. Y. R, 2022). Profitability is one of the financial indicators used to measure the soundness level of the bank, apart from other factors which are GCG, risk management, and capital. A healthy bank should maintain its capital obtained from investors and TPF and use it to give credit to the public to conduct an intermediary role and to get income and create profit. A healthy bank needs to implement GCG and risk management to avoid loss. Previous research by (Hermanto, & Anita, 2022), (Martiningtiyas, C. R., & Nitinegeri, D. T., 2020), and (Irawati, N., et al, 2019), indicates a negative effect of NPL on profitability. Research by (Anggari, N. L. S., & Dana, I. M., 2020) shows the positive effect of
TPF on bank profitability. Research by (Sondakh, J. J., Tulung, J. E., & Karamoy, H., 2021) and (Safitri, V. I., & Hendrani, A., 2020) shows the negative effect of ER on profitability.

Based on (OECD, 1999), GCG becomes a series of structures and mechanisms established by involving all components of the company, including stakeholders and shareholders, which are used to determine and achieve company goals and monitor performance. GCG has an important role in driving the performance of companies in the financial services sector so that they can carry out operational activities based on the principles of governance, namely accountability, fairness, transparency, responsibility, and independence (OJK, 2016). Based on the Indonesian General Guidelines for Corporate Governance, which refers to the OECD Principles standard and the ASEAN Corporate Governance Scorecard, corporate governance consists of eight principles covering twenty-five aspects related to governance structures and processes (KNKG, 2021). Improved company performance can be achieved through the implementation of GCG, which makes the company more effective and efficient (Natania & Karnawati, 2022). GCG has basic principles which include transparency, accountability, independence, responsibility, and fairness which must be implemented by the Bank in carrying out its operational activities (OJK, 2017). The implementation of GCG principles is manifested in the implementation of risk management, organizational structure, strategic plans, and transparency in both financial and non-financial conditions (OJK, 2017). Increasing public trust based on good governance will improve bank performance (Markonah & Prasetyo, 2022). Study by Markonah & Prasetyo (2022), Iqbal et al. (2019), Irawati et al. (2019), and Nuryana & Surjandari (2019), indicate that GCG has a positive effect on profitability.

According to Bowens (1953), Corporate Social Responsibility becomes an organization’s obligation to achieve the desired goals that align with the goals and values of society. Sustainable business put forward by John Elkington (1994) states that company performance is measured based on three criteria, including People (Social), Planet (Environmental), and Profit (Economic). The implementation of CSR based on previous research contributes to the gain of profitability. Banks are required to implement sustainable finance as a company's responsibility through CSR programs, to protect the rights of stakeholders such as employees, customers, suppliers, and shareholders (OJK, 2017). The CSR program carried out by the company is a long-term investment that has an impact on increasing public trust (Ariesa et al., 2021). However, an increase in CSR costs in the short term can reduce profitability (Chen et al., 2018). Research by Sondakh et al. (2021), and Martiningtiyas & Nitinegeri (2020), indicates a negative effect of NPL on profitability. While research by Mangantar (2019) concludes that CSR has a negative influence on profitability. Research (Lu et al., 2021) shows the moderating role of CSR strengthened GCG to the company's financial performance.
Based on the research model in Figure 1, the hypothesis development is follows:

H1: NPL has a negative effect on profitability.
H2: GCG has a positive effect on profitability.
H3: TPF has a positive effect on profitability.
H4: Cost Efficiency has a negative effect on profitability.
H5: CSR weakens the relationship between NPL to profitability.
H6: CSR strengthens the relationship between GCG and profitability.
H7: CSR strengthens the relationship between TPF and profitability.
H8: CSR weakens the relationship between cost efficiency and profitability.

METHODS

This research used secondary data from annual reports from the official websites of commercial banks, with a population of 63 banks registered with the Financial Services Authority. 25 commercial banks met the purposive sampling criteria, which are the commercial banks listed in the IDX period 2018-2021 and consistently reporting profits during the research period, with a total of 100 data. This study used STATA to run moderated analysis regression (MRA) with the regression equation as follows:

\[
\text{ROA} = \alpha - \beta_1\text{NPL} + \beta_2\text{GCG} + \beta_3\text{TPF} - \beta_4\text{ER} - \beta_5(\text{NPL.CSR}) + \beta_6(\text{GCG.CSR}) - \beta_7(\text{TPF.CSR}) - \beta_8(\text{ER.CSR}) + \epsilon
\]

The dependent variable in this study is profitability represented by return on assets (ROA), which compares profit before tax with total assets (Mahrani & Soewarno, 2018). The independent variables in this study are Non-performing Loans (NPL), Third Party Funds (TPF), Good Corporate Governance (GCG), and Cost Efficiency (BOPO), with Corporate Social Responsibility (CSR) as the moderation variable. The NPL ratio calculates the total non-performing loan minus the Allowance for non-performing loans to total bank credit (OJK, 2018). GCG is measured using the GCG Index based on the KNKG corporate governance guidelines, by comparing the total disclosures in the bank's annual report with the twenty-five principles of corporate governance (KNKG, 2021). TPF is measured by adding savings, time deposits, and demand deposits (Kasmir, 2018). Cost Efficiency (ER) is measured by comparing operating costs with operating income (OJK, 2018). The moderating variable of this study is CSR, which is
measured by comparing the total disclosure in the annual report or bank sustainability report with the GRI Standards. (Hermanto, 2021). The operational definitions of variables are illustrated in Table 1.

Table 1
Variables Measurement Source
Non-Performing Loans (NPL) NPL – Allowance for Impairment Losses Total loans (OJK, 2018).
Good Corporate Governance Index (GCG) The sum of GCG disclosures (KNKG, 2021).
Third-Party Funds (TPF) Saving+Time Deposit+Deposit (Kasmir, 2018).
Corporate Social Responsibility (CSR) The sum of CSR disclosures The sum of GRI Standards (GRI, 2021).

RESULTS AND DISCUSSION
This research has been through classic assumption tests including normality test, autocorrelation test, multicollinearity test, and heteroscedasticity test using STATA. The normality test, carried out with the Skewness/Kurtosis test, with the value of Prob> chi2 was 0.0791, which is greater than 0.05. Thus, it can be said that the data is normally distributed. The autocorrelation test was carried out using the Durbin Watson (DW) table. The DW value of 2.029045 is obtained, with a dU value of 1.7694 and a 4-dU value of 2.2306. Thus, the research data is free from autocorrelation. The multicollinearity test result for each variable has a 1/VIF value above 0.10 and a VIF value below 10. Thus, it can be concluded that the research data has passed the multicollinearity test. The heteroscedasticity test, done by the Breusch-Pagan/Cook-Weisberg test, with a result of Prob> chi2 value is 0.0620, where the value is more than 0.05. Thus, the research data is free from symptoms of heteroscedasticity.

Table 2
Simultaneous Test

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs</th>
<th>Number of obs</th>
<th>Adj R-squared</th>
<th>Root MSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>36.081511</td>
<td>1</td>
<td>4.51018889</td>
<td>F (8,43) = 44.16</td>
<td>Prob &gt; F = 0.0000</td>
<td>0.8915</td>
<td>0.31959</td>
</tr>
<tr>
<td>Residual</td>
<td>4.3919060</td>
<td>43</td>
<td>0.10213735</td>
<td>R-squared = 0.8915</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40.473417</td>
<td>51</td>
<td>0.79359641</td>
<td>Adj R-squared = 0.8713</td>
<td>Root MSE = 0.31959</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>Coefficien</td>
<td>Std. err.</td>
<td>t</td>
<td>P&gt;</td>
<td>t</td>
<td>[95% conf. interval]</td>
<td></td>
</tr>
</tbody>
</table>

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Simultaneous Test (Test F) shows the simultaneous impact of the independent variables on the dependent variable. In addition, the F test is also used for the feasibility of the research model. From Table 2, it is obtained that the probability>F value is 0.000, less than 5%. It can be interpreted that the GCG, NPL, TPF, and ER variables have a simultaneous effect on profitability, and this research model is worthy of further testing.

Partial Test (t-test) is used to see the relationship of independent and dependent variables individually. A significance value of less than 5% indicates an influence between variables, while a significance value above 5% means there is no influence between variables.

Table 3.
Hypothesis Test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 NPL has a negative effect on profitability</td>
<td>Coef.: -0.1530</td>
<td>Rejected</td>
</tr>
<tr>
<td>H2 GCG has a positive effect on profitability</td>
<td>Coef.: -7.9520, Sig.: 0.008</td>
<td>Accepted in a different direction</td>
</tr>
<tr>
<td>H3 TPF has a positive effect on profitability</td>
<td>Coef.: 0.1462, Sig.: 0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4 ER has a negative effect on profitability</td>
<td>Coef.: 4.7813, Sig.: 0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5 CSR weakens the relationship between NPL and profitability</td>
<td>Coef.: -9.3285, Sig.: 0.119</td>
<td>Rejected</td>
</tr>
<tr>
<td>H6 CSR strengthens the relationship between GCG and profitability</td>
<td>Coef.: 2.0729, Sig.: 0.127</td>
<td>Rejected</td>
</tr>
<tr>
<td>H7 CSR strengthens the relationship between TPF and profitability</td>
<td>Coef.: 0.0611, Sig.: 0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H8 CSR weakens the relationship between ER and profitability</td>
<td>Coef.: -0.0137, Sig.: 0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Partial test (t-test) result as shown in Table 3, shows that the NPL variable has a non-significant negative effect on profitability, indicated by a negative coefficient value of 0.153 and a significance value of 0.715, which is more than 0.05. The coefficient of the GCG variable has a negative value of 7.952 with a significant value of 0.008, less than 0.05. Thus, it can be concluded that GCG has a significant negative effect on profitability. The coefficient of TPF has a value of...
0.146 and a significance value of 0.000, less than 0.05, which means that TPF has a significant positive effect on profitability. As for the ER variable, based on the test results it has a significant negative effect on profitability, indicated by a negative coefficient value of 4.781 and a significance value of 0.000, where the value is less than 0.05. Furthermore, the results of the t-test show that the significance values of CSR moderation on NPL and GCG are 0.119 and 0.127, which means that CSR cannot moderate the NPL and GCG variables on profitability because the significance value obtained is greater than 0.05. The CSR can moderate the TPF and ER variables, as seen from the significance value of 0.000 for both variables, smaller than 0.05.

Discussion

The Effect of NPL on Profitability

Based on the test results, NPL has no significant effect on the bank's profitability. This result contradicts the initial hypothesis which states that NPL has a negative effect on profitability, where an increase in NPL will have an impact on decreasing profit. Therefore, H1 is rejected. The difference in the results of the study with the initial hypothesis is caused by the bank's obligation to establish an Allowance for Impairment Losses (CKPN) as an effort to overcome credit risk, as stipulated in PSAK 71. The value of CKPN formed is greater than the value of bank bad loans, so banks have reserves that are not only used to overcome credit risk but can also be used for expansion or other investments. Banks with good governance in the process of extending credit to the public have considered risk factors so that credit quality is better. In addition, there is an obligation to provide guarantees in the form of collateral that can be disbursed if credit becomes problematic and the use of non-performing loan restructuring can be carried out to overcome bad loans. Thus, the NPL value can still be maintained below the limit set by the OJK. Furthermore, if the credit turns into a bad loan, the bank can disburse collateral to overcome the bad credit. Therefore, the increase in the number of NPLs does not affect profitability. The results of this study are in line with research by Hermanto & Anita (2022), where NPL does not influence profitability.

Effect of GCG on Profitability

Based on the test results, Good Corporate Governance (GCG) shows a significant negative effect on the bank's profitability. The results obtained are different from the research hypothesis that states good GCG implementation can minimize the risks faced by banks so that bank performance is more efficient in creating profits. Therefore, H2 is rejected. The difference between the results and the hypothesis is caused by the supervisory function of the Board of Commissioners towards the Board of Directors, which limits operational activities based on measured risk management. This causes management to be unable to maximize profits through high-risk activities. Thus, the level of profit creation is low. In addition, the implementation of GCG, which requires the establishment of an organizational structure consisting of the Board of Commissioners and Committees, has an impact on increasing operational costs which results in a decrease in profits. The results of this study are in line with previous research by Kyere & Ausloos (2021), where there is a negative influence between GCG and profitability.

The Effect of Third-Party Funds on Profitability

The value of the partial test showed that TPF has a positive significant effect on profitability, with a beta value of 0.280 and a significance of 0.000. Thus, H3 is accepted because the research results are in line with the initial hypothesis. With an increase of TPF, banks have a
greater opportunity to provide loans to the public, so that interest income increases. Deposit rates which are lower than lending rates have encouraged banks to aggressively extend loans, while still adhering to the principle of prudence. Interest income, which is higher than the cost of managing TPF, increased bank profitability. Apart from lending, an increase in TPF also provides an opportunity for banks to make other investments, which provide additional income for the bank so that profits increase. The results of the study show the positive effect of TPF on bank profitability and are in line with previous research by Anggari & Dana (2020).

The Effect of Cost Efficiency on Profitability

From the test results, there is a significant negative effect of ER on the bank’s profitability, shown by a negative beta value of 0.782 and a significance value of 0.000, less than 5%. These results support the initial hypothesis, that ER has a negative effect on profitability. Thus, H4 is accepted, with the premise that banks with high efficiency can reduce operational costs, which encourages increased profits. The profit generated is then used for investment activities which provide additional income for the bank. And vice versa, the more inefficient the bank due to high operational costs, the lower the profit will be generated. The result of this study is in line with research by Sondakh et al. (2021) and Safitri & Hendrani (2020), which indicates a significant negative effect of ER on profitability.

The Moderating Effect of CSR on The Relationship of NPL and Profitability

CSR moderation in NPL has a significance value of 0.119, greater than 5%, which means that CSR is unable to moderate the relationship between NPL and the bank’s profitability. This result is not in line with the initial hypothesis, so H5 is rejected. Implementation of CSR is an additional cost for the bank. Although not regulated in detail, public companies are required to carry out activities as a form of corporate social responsibility according to Law No. 40 of 2007, where the value of CSR ranges from 2% - 3% of total profits in one year. This causes an increase in costs, which has an impact on decreasing bank profits. While the bank itself has reserved CKPN to mitigate risky credit, where the amount exceeds the estimated amount of bad loans so that high NPLs can still be overcome with the CKPN that has been reserved.

The Moderating Effect of CSR on The Relationship of GCG and Profitability

The results of the moderation test show that CSR is not able to moderate the relationship of GCG to the bank’s profitability, which can be seen from the significance value of 0.127 which is greater than 5%. This result is different from the research hypothesis, so H6 is rejected. This result is different from the research of Lu et al. (2021), where CSR can moderate GCG to financial performance. CSR's inability to moderate GCG to profitability is due to the Board of Commissioners' role in supervising the Board of Directors, which controls management so that it can carry out operations based on the principle of prudence. This oversight resulted in management's constraints in utilizing its assets to obtain maximum returns. In addition, supervision by the Board of Commissioners of the Board of Directors requires management to comply with applicable regulations, one of which is the obligation to implement CSR as one of the bank's responsibilities. The implementation of CSR causes an increase in costs, which has an impact on decreasing profits. The results of this study are supported by the results of research by Mangantar (2019), where there was no effect of GCG on profitability.
The Moderating Effect of CSR on the Relationship of TPF and Profitability

TPF moderated by CSR has a significant positive effect on profitability, indicated by a beta value of 10.518 and a significance of 0.000. This result does not contradict the research hypothesis, where an increase in TPF will have an impact on increasing the profits of the bank. Based on the test, showed that CSR strengthens the relationship between TPF and profitability. Thus, the H7 of this study is accepted. The implementation of CSR can increase the reputation and trust of stakeholders so that public and investor confidence will increase. An increase in the level of public trust will increase the deposit of funds in the bank, which has an impact on increasing TPF that leads to an increase in profit. Research by Anggari & Dana (2020) and Kustina et al., (2019) found that TPF has a positive influence on profitability. Research by Saadaoui & Salah (2021), Ramzan et al. (2021), and Siueia et al. (2019) shows that CSR has a positive effect on profitability.

The Moderating Effect of CSR in the Relationship of Cost Efficiency and Profitability

The test result of CSR moderation on ER to profitability obtained a beta value of negative 10.375 and a significance of 0.000. This means that CSR weakens the effect of ER on the profitability of Commercial Banks. This result supports the research hypothesis so that H8 is accepted. Banks are required to carry out CSR activities with a percentage ranging from 2% -3% of total profits in one year. The greater the CSR costs allocated by the bank; the more costs incurred by the bank. This has an impact on decreasing profits. On the other hand, an increase in ER also resulted in a decrease in bank profits. The more inefficient a bank is, the more its operational costs will increase. Coupled with the obligation to implement CSR, this increases the amount of costs that must be borne by the bank. The increase in operational costs coupled with the costs of implementing CSR resulted in a significant decrease in profits. The results of this study are in line with the research of Chen et al. (2018), where CSR has a negative influence on profitability.

CONCLUSION

Based on the results of the study it can be concluded that the variables Non-performing Loan (NPL), Good Corporate Governance, Third Party Funds, and Operating Expenses on Operating Income jointly affect profitability. Partially, NPL has an insignificant negative effect on profitability, GCG has a significant negative effect on profitability, TPF has a significant positive effect on profitability and ER has a significant negative effect on profitability. CSR is unable to moderate the relationship of NPL and GCG to profitability. While CSR moderates the relationship between TPF and ER to profitability.

The results of this study are expected to assist management in improving financial performance, especially in increasing profits, so that the soundness level of the bank can be maintained. Increasing profit can be achieved through good risk management so that NPL can be maintained below the limit set by Bank Indonesia and OJK, better implementation of GCG, increasing TPF, increasing the efficiency of operational activities, and implementing CSR to elevate the trust of stakeholders.

Due to the limitations of this study which only uses commercial bank populations and the limited variables used that only can explain the profitability of 87.13%, which means that other factors affect the profitability of 12.87%, the next researcher is expected to be able to complete the research by adding other variables such as capital adequacy, liquidity, and solvability. Also using different populations, such as Islamic Commercial Banks and Rural Banks.
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