# Determinants of the Profits in Regional Development Banks in Indonesia

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Keywords: Business Regional development bank Financial determiners Financial reports Bank performance OLS model Indonesia ABSTRACT. Regional Development Banks (BPDs) should develop their regional governments' economy by increasing their performance. This study attempts to determine the effect of GCG and other variables on the banks' performance indicated by the profit. This study used 10 determiners as the independent variables such as NPL, LASSET, LTA, ETA, FBIR, TDR, LDR, NIM, DGCG, and GCGI, while the dependent variable is ROA. The data were taken from the BPD's financial reports from 2014 to 2019. There were 26 BPDs as the sample based on the stipulated criteria. The results show that NPL is an essential factor for increasing the banks' performance. Next, the time deposit ratio to total deposit also has a positive effect but not significant. The LTA ratio is negative but not significant, while GCGI has a significant effect. Therefore, NPL, and GCG are the dominant factors in determining the banks' performance. The modeling constant values are all significant, indicated by the risk level ranging from 36-40%. It can be concluded that NPL is an important variable in determining risk for banks, so is the GCG index that can also affect the banks' performance. Therefore, BPDs should pay attention to their NPL and GCG in order to increase their performance

# 1.0. Introduction

A regional development bank (BPD) is a financial institution established by the Indonesian government to encourage regional economic development. In this case, as the shareholder, the regional government is expected to strategically provide them with the role of making the economy better in their regional bureaucracy. According to Hill and Vidyattama (2016), after regional autonomy reformation, governance changes at the regional level are unbalanced and dynamic even though the political implications are very strong. This also implies that regional development everywhere is increasingly unequal.

Currently, the performance of regional government banks (BPDs) is not as good as expected due to some factors. This encourages them to focus more on their own regions. Therefore, the strategic value of these regional developments is currently being questioned. Their performance, in general, is still below the private banks and state-owned banks' performance. However, the regional development banks tend to have different governance characteristics, as Carrasco, Carrington, and Lee (2009) stated. Due to this fact, this study examines how the performance of regional development banks and the risks they face are associated with governance.

The following framework of Claessen and Yurtoglu (2013)—when the governance of a bank is good—also has an impact, including improvements in terms of performance, efficiency, and providing better financial access. Likewise, the pressure to get cheap funds is getting easier. Since it is with good governance, stakeholders can be glad because bank management's basic principles pay attention to investors' and stakeholders' interests. For example, when the governance is not good, it also affects the quality of assets and causes volatility. More seriously, it increases the risk.

There are many examples of bad governance that lead to the company's poor performance. Therefore, the researcher needs to examine whether the regional government banks' (BPDs) governance affects their performance. This study primarily tries to determine the effect of governance implementation on profits and risk management. It also provides additional literature on the local economy, especially related to how governance affects.

There are fundamental problems experienced by companies with political links or government link companies (GLC) such as BPD. According to Huang, Xie, Li, and Reddy (2016), there are at least three weaknesses of GLC, namely a small opportunity to compete widely, slow in market development, and competition with similar companies. Furthermore, they revealed the shortcomings of government-owned companies, namely decision making that is not purely for business interests. However, proximity to politics can be used by the GLC for business purposes.

Referring to Laeven and Levine (2009), Mongid and Muazaroh (2017), Williams (2014), and Love (2011), this study discusses how the GCG implementation index affects the banks' performance in

Indonesia. This study uses BPDs as the sample because these banks represent the characteristics of the banks that are owned by the government. They, generally, have little respect for governance. The research problem is formulated as follows: What factors contribute to the regional government banks' (BPDs) performance? This study aims to determine the effect of GCG implementation and other variables on earnings performance. This study provides benefits to BPD management to increase their performance.

## 2.0. Framework of the Study

It has been generally viewed that governance is very complicated. It requires several aspects, including transparency, accountability, independence, responsibility, and many others. All these have, in fact, a significant influence on business management. Due to being relatively limited in the literature, this study tries to provide some additional literature related to good corporate governance (GCG).

Daniri (2005) argued that GCG in Indonesia demands international institutions such as the IMF and the World Bank when the economic crisis occurred in 1997-1998. GCG is an important key for a company's success to grow and be profitable in the long term according to the wishes of stakeholders. Moreover, the Booz-Allen Survey in East Asia in 1998 showed that Indonesia had the lowest corporate governance index with a score of 2.88 or very low category. Thailand has a score of 4.89, Malaysia 7.72, and of course, Singapore is at the peak of 8.93. GCG is one of the causes of the downfall of companies during the Asian economic crisis.

Indonesia's authorities expect the banks to improve their GCG: such as GCG, as a crucial issue after the 1997-1998 crisis and bankruptcy. Studies on GCG and performance by Ayadi et al. (2019), Aebi et al. (2012), and Akhibe et al. (2017) are among them. All argued that the performance rises due to the implementation of governance. Evidence shows that governance will benefit shareholders. Beltratti and Stulz (2009) found that commissioners paying attention to the interests of shareholders did not perform well. However, the results found that the effect of risk and governance mechanisms is essential.

There have been some previous studies on agency problems. Ayadi, Ayadi, and Trebelsi (2019) found that banks carry out a tradeoff agency problem between governance mechanisms to reduce the intensity of agency conflicts between shareholders and managers. Besides that, the minimum capital regulation also significantly affects the banks' performance in Europe. However, Dewany (2015) shows the opposite, namely, the quality of GCG implementation in Islamic banks in Indonesia has no effect on the rate of return and financing risk but affects capital.

Moreover, the commissioners' role is important in GCG due to their tasks: the remuneration and compensation committee, the risk monitoring committee, and the audit committee. GCG provision is also quite strict, e.g., the prohibition of holding concurrent positions with directors. This study also focuses on the effect of GCG on risk. Previous researchers have extensively investigated this. The point remains on how to improve performance but a small relative risk.

GCG and performance in the past crisis were also discussed by Peni and Vehama (2012). The result is consistent that GCG has a negative effect on company performance. This happened before the crisis. The company took high risks so that when the crisis came, they had problems. When problems occurred, the decision-making process could not be carried out immediately (Essen, Engelen, & Carney, 2013).

CEO duality is associated with better performance, and the number of board subcommittees has a negative impact. However, such evidence may not be fully generalizable for companies in the financial sector. Other studies found that GCG also lowers credit risk. Therefore, this research focuses on these many differences/ contradictions. Nevertheless, GCG towards performance in the given pieces of literature can be either positive or negative. GCG towards risk was also discussed by Haryati and Kristijadi (2014). GCG is aimed at protecting investors, as was done by Bianchi et al. (2011). However, there is an opposite relationship that GCG increases risk. Of course, in the study on BPDs, the shareholders are irrelevant because very few go public (only 2 BPD banks go public). Syam and Nadja (2012) argue that the failure to implement GCG in the banking industry in developing countries is less GCG.

Other studies suggest that much riskier assets may require higher profits to compensate for the greater risk of default (Figlewski et al., 2012). Banks spreads can increase according to the higher

default risk (De Blas & Russ, 2013; Gelos, 2009; Saona, 2016). There is no impact on credit risk on bank profitability, which Lee also found (2017). In addition, ETA can increase higher profitability, consistent with the research of Ayadi and Boujelbene (2012), Ben Khediri and Ben-Khedhiri (2009), Dietrich and Wanzenried (2010), Flamini et al. (2009), Petria et al. al (2015), Roman and Dãnuleþiu (2013), Stanèiæ et al. (2014), Sastrosuwito and Suzuki (2012), Iramani et al. (2018), and Mishi and Khumalo (2019). In addition, better capital strength provides more effective business opportunities.

The GCG implementation and the ranking is based on eleven GCG indicators. Bank Indonesia Circular No. 15/15 / DPNP / 2013 lists 11 aspects. The bank conducts its own assessment to assess GCG, where the best is 1, and the worst is 5. The 11 aspects are 1) Implementation of the functions of the Board of Commissioners; 2) Implementation of Director functions; 3) Completeness and implementation committee 4) Dealing with conflicts of interest; 5) Implementation of bank compliance; 6) Implementation of the internal audit function; 7) Implementation of the external audit function; 8) Risk management and control system functions; 9) Provision of funds to related parties;10) Transparency of financial and non-financial conditions; 11) Bank strategic planning. In such a context, fee-based income is also considered an important factor affecting the ROA. Among the 11 aspects, this factor is congruent with the bank sector (Yaqinah, 2020).

Conceptually, it becomes very specific that BPD shareholders are local governments. GCG is very important for them. There have been some studies on GCG so far, but few are related to the banking sector. Sutopo et al. (2017) used corruption and political aspect towards BPD performance. Yet, the total deposit is also influential. The total deposit (TDR) in the context of corporate governance is also salient. It can also affect the ROA in some cases (Agustine & Rusliati, 2020). Besides that, Silaban (2017) also asserted in his study that Net Interest Income (NIM) also affects the bank's profitability or ROA.

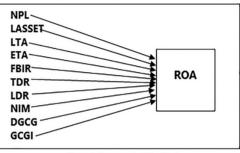


Figure 1. Framework of the Study

This study focuses more on the model applied by previous research such as by Iramani et al. (2018) and Ghalib (2018). It uses the GCG concept applied by Bank Indonesia or the Financial Services Authority. Among these aspects are NPL, LASSET, LTA, FBIR, TDR, LDR, NIM, DGCG, and GCGI, as described in the previous studies and theories related to Good Corporate Governance (GCG).

Using the panel model, the researcher tested the direction and relationship between GCG and BPD's performance, for providing support for the role of GCG to increase the Bank's performance and lower risk. For a clear conceptual framework, it can be shown in Figure 1.

As described in the background and the problems stated, the study hypothesized that:

- 1. NPL has a significant negative effect on ROA.
- 2. LTA has a significant effect on ROA.
- 3. Lasset has a significant effect on ROA.
- 4. ETA has a significant effect on ROA.
- 5. FBIR has a significant effect on ROA.
- 6. TDR has a significant effect on ROA.
- 7. LDR has a significant effect on ROA.
- 8. NIM has a significant positive effect on ROA.
- 9. The GCG dummy has a significant effect on ROA.
- 10. GCGI has a significant effect on ROA.
- 11. NPL has a significant negative effect on the I-Z-score.
- 12. TDR has a significant effect on the I-Z-score
- 13. LTA has a significant effect on the I-Z-score.
- 14. LASSET has a significant negative effect on the I-Z-score
- 15. DGCG has a significant effect on the I-Z-score
- 16. GCGI has a significant effect on the I-Z-score

## 3.0. Methods

*Types and Sources of the Data.* This study used secondary data collected from the banks' financial reports at the end of the financial reporting period. These financial reports were taken from the published reports by the banks and consolidated on the OJK website. For GCG data, they were obtained from banks' publications on the websites.

*Operational Definitions of the Variables.* The variables and their measurements are presented in Table 1. In total, there are 10 independent variables and two dependent variables.

No	Variables	Definitions	Sources	Expectations
		Variable Dependent		
2	ROA	Profit / Total Asset	BS/IS	
3	I-Zscore	(ROA+ETA)/Standard Deviation ROA	BS/IS	
		Independent variable		
1	GCGI	Inverse GCG rating	GCG Report	Both
	DGCG	Dummy GCG, 1 if > average	GCG Report	Both
2	NPL	Problem Loan / Total Loan	BS/Quality report	Negative
3	NIM	(Interest Income – Interest Expenses)/Productive Asset	BS/IS	Positive
4	LASSET	Log Total Asset	BS	Both
5	ETA	Equity Capital / Total asset	BS/IS	Positive
6	CIR	Total operating expenses/ Total operating Revenue	IS	Negative
7	LTA	Loan / Total Assets	BS	Positive
8	CAR	Eligible Capital/ Risk Weighted Asset	BS	Positive
9	TDR	Time deposit / total deposit	BS	Negative
10	FBIR	Fee-based income / total operating income	IS	Positive

Table 1: Variables and measurements

*Population and the Sample.* The population in this study was banks with legal status as the regional government banks (BPDs). Even though the banks have gone public and the majority ownership is public, they remain to be the BPDs. This study used a census so that all populations would be the sample in the study.

The criteria for selecting the sample are as the following: (1) Regional Development Bank (BPD); (2) the banks were still operating in the period 2014 to 2019, and (3) the banks have financial reports and the CGC Report as well.

No.	Names of the Banks	No.	Names of the Banks
1	Bank Aceh	14	BPD Maluku
2	BPD Bali	15	BPD Nusa Tenggara Barat
3	BPD Bengkulu	16	BPD Riau Kepri
4	Bank DKI	17	BPD Papua
5	BPD Jambi	18	BPD Riau Kepri
6	BPD Jawa Tengah	19	BPD Sulawesi Tenggara
7	BPD Jawa Barat and Banten	20	BPD Sulawesi Selatan and Sulawesi Barat
8	BPD Jawa Timur	21	BPD Sulawesi Tengah
9	BPD Kalimantan Timur	22	BPD Sulawesi Utara
10	BPD Kalimantan Tengah	23	BPD Sumatera Barat
11	BPD Kalimantan Barat	24	BPD Sumatera Selatan and Bangka Belitung
12	BPD Kalimantan Selatan	25	BPD Sumatera Utara
13	BPD Lampung	26	BPD Yogyakarta

Table 2 Banks with	legal status as the regio	nal government hanks
<b>Tuble 2.</b> Datiks with	i legal status as the legit	inal government banks

*Method of Data Selection.* This study uses secondary data obtained from annual financial reports and GCG reports from BPD for 2014-2019. The data collection method uses the documentary method because the data required and collected is secondary data published by the OJK in published financial reports. Then this data is the year-end financial report. For GCG data, it is obtained from the bank's Self-Assessment Report and obtained at each bank's website.

Technique of Data Analysis. The analysis technique used is as follows:

1. Panel data regression. The consideration is that there are specific characteristics of each type of BPD as the following.

 $\begin{array}{l} \mathsf{ROA}_{\mathfrak{n}}=\alpha_{\mathfrak{n}}+\beta_{1}\mathsf{GCGI}_{\mathfrak{n}}+\beta_{2}\,\mathsf{DGCG}_{\mathfrak{n}}+\beta_{3}\,\mathsf{NIM}_{\mathfrak{n}}+\beta_{4}\,\mathsf{LASSET}_{\mathfrak{i}\mathfrak{t}}+\beta_{5}\,\mathsf{ETA}_{\mathfrak{n}}+\beta_{6}\,\mathsf{LTA}_{\mathfrak{i}\mathfrak{t}}+\beta_{7}\,\mathsf{FBIR}_{\mathfrak{n}}+\beta_{8}\,\mathsf{NPL}_{\mathfrak{i}\mathfrak{t}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}\mathfrak{t}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}\mathfrak{t}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}\mathfrak{t}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}\mathfrak{t}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}\mathfrak{t}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}\,\mathsf{TDR}_{\mathfrak{i}+\beta_{9}}+\beta_{9}\,\mathsf$ 

Description:

ROA = Profit/ Total Asset

 $\alpha_{it}$  = Constant

 $\beta$  = Coefficient

GCGI = GCG Index

DGCG = GCG Dummy

NIM = Net Interest Margin

LASSET

ETA = Equity to Total Asset

LTA = Loan to total asset

FBIR = Fee Base Income

NPL = Non Performing Loan

TDR = Time Deposit / Total Deposit

2. In the selection process, the following tests were carried out:

a. Chow test. It is a test to compare common effect models with fixed effects. If it is found that the common effects model is good, then the simple OLS model can be used. If the

fixed effect model is better, a choice between fixed and random was made through the Hausman test.

- b. Hausman Test. It is a test that compares the fixed effect model with the random effect in determining the best model to use as a panel data regression model. This means that this test is to choose between fixed or random effect models for analysis.
- c. Brusche-pagan test. It is used to choose between OLS and the Random Effect model. When the OLS model is good, the Heteroscedasticity is relatively low, so simple OLS is sufficient. When the results show that the random effect model is better than this is chosen, then the test results are used to ensure between choosing a random or fixed-effect model.

## 4.0. Results and Discussion

The result of collecting the data on BPD from 2013-2019 was 176 observations, as shown in Table 3. In general, there were no BPDs that suffered losses, even though there were BPDs whose profit rates were close to 0%. However, in general, the NPL performance was still below 5% on average even though there were several BPDs whose NPL levels exceeded the maximum limit of 5%. The loan is still the main source of investment where, on average, almost 70% of the asset is a loan.

Variable	Obs	Mean	Std. Dev.	Min	Max
NPL	176	2.60224	2.294965	0	10.32
LASSET	176	16.36645	.8509048	14.40182	18.50142
LTA	176	68.76127	5.815561	52.76829	80.26624
ETA	176	26.90264	6.671072	16.02668	49.32823
FBIR	176	18.51904	14.9239	2.61	51.3
TDR	176	34.4144	13.58904	7.1	68.6
LDR	176	94.78152	11.19351	70.77	128.43
NIM	176	8.63064	2.357682	.57	15.76
DGCG	169	.6190476	.4875595	0	1
GCG	169	3.621849	.5366499	3	5

Table 3. Result of data dispersion

Also, in general, BPD capital is quite strong where, on average, more than 25% of assets are financed from their own capital. This means that the BPD is sufficiently strong in the capital. Some BPDs in the expansion areas, because of the injection of capital from the new province, almost 50% of the assets are financed by their own capital.

FBIR to bank income is quite high, reaching 18%. Compared to private banking, the figure is still below the national banking average, which is above 25%. So far, there has been a misunderstanding regarding the source of BPD funds. Thus, deposit funds are quite high, reaching 34%, meaning that almost a third of BPD funds are expensive funds. As a result, BPD also carried out quite high intermediation, reaching 94%. BPD's net interest income is quite high, reaching 9%. However, some can reach 15% because they use regional government demand deposits with interest close to 0%. In terms of GCG implementation, in general, it is quite good, namely at least good with the lowest modified score of 3.

The evidence above supports Claessen and Yurtoglu (2013), revealing that capital impacts are not significant for providing better financial access. Also, the evidence provided by Carrasco, Carrington, and Lee (2009), arguing that GCG is an important factor for bank performance. Moreover, this is also supported by the findings of the studies by Laeven and Levine (2009), Mongid and Muazaroh (2017), Williams (2014), and Love (2011). They found that GCG has an impact on the bank's performance that is ROA.

#### **Relationship between variables**

The subsequent analysis is related to the relationship between variables, as presented in Table 4. In total, there is no TV between the independent variables and the dependent variable. All are below 50%. Therefore, the risk of multicollinearity is low. The highest ratio is between ROA and NPL, namely -43.44%. The relationship between the dependent variable, namely ROA and Z-score, is quite high because the Z-score compound originates from ROA.

ROA also refers to the bank's performance, and it is affected by NPL. In this case, it is also in line with Carrasco, Carrington, and Lee (2009)

Table 4. Correlation

ROA	NPL	LASSET	LTA	ETA	FBIR	TDR	LDR	NIM	DGCG	GCG	
ROA	1.0000										
NPL	-0.4344	1.0000									
LASSET	-0.3244	0.4369	1.0000								
LTA	0.1934	-0.1543	-0.0479	1.0000							
ETA	0.1444	-0.0461	-0.3316	-0.1087	1.0000						
FBIR	-0.1852	-0.0702	0.2560	-0.0513	-0.2416	1.0000					
TDR	-0.0573	-0.2509	0.0672	0.1629	0.0692	0.0670	1.0000				
LDR	0.2295	-0.1484	-0.3137	0.5989	0.7237	-0.2293	0.1393	1.0000			
NIM	0.1733	-0.0621	-0.1590	0.1047	-0.0212	-0.2697	-0.0230	0.0709	1.0000		
DGCG	0.0207	-0.0573	0.0671	-0.0573	-0.1260	0.2595	-0.1064	-0.1380	-0.1686	1.000	
GCG	-0.0212	-0.0476	0.0456	-0.0819	-0.1196	0.2935	-0.1564	-0.1509	-0.2121	0.9568	1.0000

As in Table 5, there is a consistency of the various models this study used. In the estimation using OLS regression, the NPL negatively affected a significant coefficient of 0.244 at 1 percent. The panel model fixed-effect and random effect produce almost the same coefficients that are all significant at 1%. Thus, the NPL has a negative effect on ROA. This is reasonable and understandable because NPL is a problem faced by banks. It implies that the relationship between NPL and Profit is negative.

Looking at the evidence above, NPL is considered salient. This also supports the previous studies such as those by Yaqinah (2020), Sutopo et al. (2017), Iramani et al. (2018), and Ghalib (2018). They found that NPL is an important factor to increase the bank's performance that is ROA.

The model uses the logarithmic variable of total assets as an indicator of the business scale. It shows that the value of the coefficient is negative but not significant. This means that the greater the BPD's assets, the lower the profits are. This can be interpreted by large BPDs, and those with small business scales have the opportunity to earn a profit. Loan to total assets (LTA) shows it has a positive and significant at the confidence level of 1 percent. It is the main source of income for the banks in Indonesia, especially BPD. Therefore, the banks that fail to manage credit risk will face serious problems. The result is evidently significant in all models.

The capital ratio (ETA) also shows a significant and positive coefficient of 44.60 and significant at 1 percent. The result is consistent across all models. This study uses ETA instead of CAR because it is more reflective of true capital. The Fee-Based Income Ratio (FBIR) has a negative and insignificant effect on ROA. This result is also consistent for both OLS and panel models.

Time deposit to total funds shows a negative 0.27 and a significance of 1 percent. Yet, for the FE model, the result is not significant. It is significant at 5%, showing that time deposits are expensive funds. The bigger they are, the more burdensome for the banks. Therefore, expensive funds have a negative effect on bank profits. This finding does not support the previous studies, such as those by Agustine and Rusliati (2020), Silaban (2017), Iramani et al. (2018), and Ghalib (2018). They found that ETA can affect the bank's performance. However, this study does not support it.

Variable	Estimation Model							
Variable	OLSROA	FEROA	REROA	GLM				
NPL	244***	284***	251***	254***				
LASSET	104	1.1	0574	0397				
LTA	44.9***	42.4***	45.3***	45.3***				
ETA	44.6***	35.5**	44.6***	44.3***				
FBIR	00863	.0182	00674	0059				
TDR	0267***	0162	0213*	0197*				
LDR	306***	264**	309***	309***				
NIM	.0624	.204***	.105*	.116**				
DGCG	1.36*	.0758	.77	.639				
GCG	-1.2	228	737	634				
_cons	-4.26	-28.7**	-6.91	-7.63				
R-Squared								
chi2		57.144	60.253					
df								
Ν	119	119	119	119				
aic	350.082	275.161						
bic	380.653	305.731						
rank	11.000	11.000	11.000	11.000				

Table 5. Results of the estimate

LDR has a negative and significant at 1 percent, meaning the loan to deposit ratio gets higher while the profit will be lower. As it is known, BPD from its operations relies a lot on funds originating from APBD funds. It is in the low-cost demand deposits. However, due to the increased competition, the loan ratio to third-party funds, which is quite expensive, can have a negative impact.

NIM has no significant effect on OLS models, significant with a confidence level of 1%. The result is positive and significant at 5%. This means that the NIM change is significant to BPD's profit. The next is GCG towards the bank's performance that is often not linear. The dummy effect of GCG on BPD ROA is only significant in the OLS model. However, all models show a positive coefficient, meaning that good governance can increase profits. However, the effect of GCG on ROA is not significant. The result is negative but not significant, either.

NPL has a negative and significant effect at 1 percent, while the asset has a positive but insignificant effect. The greater the ratio of loan to total assets, the greater the profit is. Thus, the loan is the main business and the most profitable business for BPD in Indonesia. FBIR has a positive and significant at 1 percent. With the stronger the capital, the bank is more profitable. It is not significant but positive. Thus, the FBI does not affect profitability at BPD. The TDR has a negative but not significant. On the contrary, for the LDR, the results show that the liquidity ratio is negative and significant at 1 percent. Thus, the liquidity ratio in this context reduces profits because of negative efficiency.

NIM has a positive and significant at 1 percent and reasonable because, with a high NIM, profits will increase. Thus, the higher the interest margin, the higher the profit is. The GCG index shows a negative but not significant effect. This consistency shows that better GCG has a negative effect on the bank's performance. The NPL has a negative and significant effect at 1 percent. Yet, assets have a negative but not significant. Also, the ratio of loan to total assets has a positive and significant effect at 1 percent. It means that it is consistent. For the fee-based income, the result is negative but not significant, while for a time deposit, it is negative and significant at 5 percent.

This is special for NPL and GCG that supports the previous studies while the other four factors, such as FBIR, NIM, TDR, and LDR, do not. This finding for the three factors they are not influential. They are not significant.

For LDR, this has a very significant effect with a coefficient of 0.31 and significant at 1 percent while NIM is significant at another 10 percent for GCG, which is measured, both the dummy and the index, but the result is not significant. To test whether this model is good enough, a robustness test

was done by estimating using the generalized linear model (GLM) model. The result is consistent with all previous models. The consistent estimate of financial performance for BPD is reliable. All are consistent with the previous model. GLM result also shows there is no different direction coefficient. With this robustness test, it can also be judged that the model used in this study is good enough.

In general, based on the analysis, this study provides evidence that the factors of NPL and GCG are the two important factors for increasing the bank's performance that is ROA. This ROA is important, and this is in line with the previous studies by Sutopo et al. (2017), Iramani et al. (2018), and Ghalib (2018) also by Yaqinah (2020), Sutopo et al. (2017), Iramani et al. (2018), and Ghalib (2018). Besides that, GCG is also an important factor, and this is also in line with the previous studies by Claessen and Yurtoglu (2013), Sutopo et al. (2017), Iramani et al. (2018), and Ghalib (2018).

### 5.0. Conclusion

NPL has a negative and significant effect on ROA with a confidence level of 1 percent. The higher the NPL, the higher the BPD's risk, and the lower the performance is. Thus, NPL significantly affects the bank's performance. The time deposit ratio variable to total deposit is positive but not significant. Meanwhile, the ratio of loan to total assets is negative but not significant. Thus, the higher the ratio of loan to total assets (LTA), the smaller the BPD's risk is.

The evidence above shows that loan has a negative effect on risk. For GCG, the dummy shows a significant result, meaning that the higher the GCG, the lower the risk. For the GCG Index, the result is also significant and negative at 5 percent, meaning that GCG has a negative and significant effect on the bank's risk. The GCG index shows a negative and significant 5 percent. This also means that GCG has a negative effect on risk. Meanwhile, for assets, it is negative but not significant.

The OLS model or feed-effect, or random-effect, in general, is consistent. The NPL is significant in all models, so is GCG, it is significant. The result is that the NPL is consistently significant, and the GCG index is significant at 5 percent, which indicates that GCG is dominant in determining risk.

The most interesting is the modeling constant values that are all significant. There is a certain pattern of risk levels ranging from 36-40%. Again, the most evidential in this study is the important factors of NPL and GCG that have affected the bank's performance that is ROA. In other words, NPL and GCG are the influential variables for increasing the bank's performance indicated by its ROA.

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