

OWNERSHIP PATTERNS AFFECTING AND IMPACTING THE BANKING PERFORMANCE- A STUDY

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ABSTRACT

The commercial banks and the community development banks serve different niche of customers. They also have different ways of carrying out their duties and cater for different market. Hence this study will try to identify whether the ownership pattern will affect the bank performance. Research have shown that private banks are better because their motive of profitability will forced them to work hard to ensure that they get the maximum profit as they can.

Keywords: Banking Performance, Ownership Patterns, Impact of Banking Companies.

INTRODUCTION

The principal types of banks in the contemporary industrial world are commercial banks which are typically private owned banks and government owned banks. The objectives of these two banks are similar where they focus on maintaining higher profitability. These two types of banks can be found in most countries in the world, but the uniqueness of Indonesian banking system is that there is another category

of banks, which is called the community development banks. Community development banks are monetary organizations operated on a local basis. In terms of coverage, their coverage is much more smaller than the private and the publicly owned banks. But what about the community development banks? They also give loans or credit to local people and perform other functions of a bank – do they perform better than private banks or the other way round? These are the questions that the study wishes to answer.

The financial crisis will affect the borrower. Individuals may lose jobs while the company will suffer losses. This will increase the amount of bad debts and in turn affected the profit of a bank. The financial crisis has caused banks in Indonesia experienced financial difficulties and declining profits and changes in the composition of the number of private banks and central government. The government had to liquidated the 16 banks in 1997, 38 banks in 1999 and takeover the operations of seven banks in April 1998. At the same time people's confidence in the banking system has deteriorated, especially after the government to liquidated for the 16 banks from operating in November 1997.

Table 1 Summary Of Bank Industry Highlights During Economic Crisis In Indonesia

	State bank		Private bank		Community development bank	
	1997	1999	1997	1999	1997	1999
Number of banks	7	5	144	92	27	27

Branches	218	316	29	39	20	20
Assets*	201.9	417.3	248.7	291.6	12.3	18.8
Loans*	153.3	112.3	168.7	56.0	7.5	6.8
Deposits*	133.0	312.2	177.2	252.9	8.8	14.0
Capital*	13.8	(17.7)	25.2	(10.2)	1.3	2.0

Source : Bank Indonesia

* : trillion rupiahs

Table 1 shows economic crisis in Indonesia had an influence on the banking industry where the community development banks) decreased of banks. However, for deposits increased because people would rather save money in the bank due to high interest rates and unstable macroeconomic condition.

LITERATURE REVIEW

There have been numerous studies on bank ownership and its relationship with performance where performance is measured by return on assets and return on equity. Athanasoglou et al. (2008) find that the ownership structure does not play a significant role in banks performance. Barros et al. (2007) use 7,635 observations from 1,384 European commercial banks for a period of 1993 to 2001. Their study finds that ownership structure does play a role in the performance of the banks. Micco et al. (2007) find that government owned banks have significant negative relationship with performance in developed countries while foreign banks have positive relationship with performance in these countries. The study finds that government owned banks tend to have a low profit with higher operating costs which is in contrast to foreign banks. Cornett et al. (2010) show that besides having lower profitability government-owned banks also held lower core capital and had greater credit risk compared to privately owned banks prior to 2001, that is periods around the Asian financial crisis. Micco et al. (2007) look at the relationship between bank ownership and performance in the industrialized economy and developing countries. The results show that in developing countries, government banks typically have lower profitability, lower margin and higher overhead cost than private banks. This results is in contrast with foreign banks. Reaz (2005), Beck et al. (2005), Berger et al. (2005), Omran (2007), Iannotta et al. (2007) and Farazi et al. (2011) show that the private banks are better than banks owned by government.

Many studies have documented that banks owned by government normally have lower

number of government and private ownership banks, assets, loans and capital (except the profit, higher operating costs and low quality of assets compared to private banks. Berger et al. (2005) find that government banks in Argentina increase their performance after being privatized. Cornett et al. (2010) studied that differences in performance of government owned banks and private banks in 16 countries for the period 1989 and 1998. Overall, they confirm previous findings that government owned banks have lower profit and lower amount of capital, higher risk and less liquid. By using a sample of 100 banks in developed countries, Mian (2006) conclude that the lower performance of government owned banks are the results of inefficient management and they depend on government support to stay alive. But Zhang and Yang (2011) show that the performance if majority of banks stock is in the hand of government are better than banks owned by private bank during finance crisis in China.

A few studies have also shown that government owned banks distort the economic development of a nation (La Porta et al., 2002; Galindo & Micco, 2004). The reason is that the purpose of these banks is more towards political agenda rather than economic and social agenda. La Porta et al. (2002), for example, show that bank owned by government in 1970's is related to low financial and economic development. Barth et al. (2004) found that government owned banks have negative relationship with profit but positive relationship with corruption. Micco et al. (2007) found that the lending performance of government owned banks increased as election time gets nearer.

Indonesian banking master plan requires all banks must have a minimum capital of 100 billion rupiahs at the latest by the end of 2010. The study uses a dummy equity have not been conducted by researchers, but studies Pasioras and Kosmidou (2007) and Neceur and Goaied (2008) showed that the number of high equity is better because it will reduce bank operating costs and reduce the risk of bankruptcy.

Davydenko (2010), Mirzaei et al. (2011) and Sufian and Habibullah (2012) found that economic growth have influence positive on bank performance. This shows that the higher the economic growth performance of banks as economic activity using the bank as a loan fund. While the economy is good, companies will pay their loans.

Berger and Bonaccorsi (2006), Mashharawi and Al-Zu'bi (2009), Barry et al. (2011) and Hoffmann (2011) found that equity to total assets ratio influence negative on ROE. This indicates that the cost of the agency consistent with the theory that the increased use of debt can increase ROE. Davydenko (2010), Barry et al. (2011) and Sufian and Habibullah (2012) found that the ratio of equity to total assets influence positive on ROA. This indicates a high equity ratio will improve the ability to overcome the loss of bank assets, including loans, increasing the income from the reduction in bankruptcy costs, obtain higher profits if doing the expansion in bank products offer several benefits. High equity can reduce the amount of capital from outside the capital cost is higher than equity so as to reduce bank profits and as the strength of the financial risk and increase the deposit protection for the unstable macroeconomic conditions.

Loans to total assets ratio to be able to reduce the negative influence of liquid assets of banks, bad debts increase, banks quickly increase the amount of the loan will pay the higher cost of capital so as to reduce the demand for bank earnings. This study is compatible with Bashir (2003) and Beck et al. (2005) found that the ratio of loans to assets influence negative on bank performance.

Operating costs to total assets ratio will affect bank performance. If the operating cost is high, then the bank's performance will be lower. This indicates that banks with higher productivity and efficiency will always keep operating low costs. The study Beck et al. (2005), and Mashharawi and Al-Zu'bi (2009) and Mirzaei et al. (2011) found that the ratio of operating costs to total assets ratio has a negative influence on ROA and ROE. While Althanasoglou et al. (2008) and Davydenko (2010) found that the costs have a negative influence on ROA. While Sufian and Chong (2008) and Mirzaei et al. (2011) found that total assets has a negative influence on ROA and ROE for the economy in down. This indicated the agency costs, bureaucracy and costs that affect the management of large companies.

Studies in Indonesia, so far have looked into the performance of banks but did not study the effect of ownership structure on the performance of banks. For example, Surifah (2002) analyze the performance of Indonesian banks before and after economic crisis using the CAMEL (Capital, Assets, Monitoring, Efficiency and Liquidity) ratio. The study show that these ratios differ significantly before and after the economic crisis. Payamta and Machfoedz (2002) evaluate Indonesian banking performance before and after the banks going public while Luciana and Winny (2005) look at factors that contributes to financial distress in banking sector.

RESEARCH METHODOLOGY

Data and Sample

The population consists of 124 banks which are 5 government banks, 92 private banks and 27 community development banks. The study did not include foreign banks and mixed bank because of difficulty in getting the data. From the 124 banks, only 74 banks were selected to be the sample. The banks are 56 private banks, 3 government banks, and 15 community development banks. The period under study is from 1997 to 1999. The data are taken from banks' annual reports.

Variables and Data Analysis

The dependent variable is return on assets (ROA) and return on equity (ROE) . The independent variables are as follows:

Banks ownership: It has been documented that ownership structure play a role in banks performance. Types of ownership can influence banks decisions. Since there are three types of banks, we use two dummy variables. Dummy central government (DCG) takes on a value of one for government-controlled banks and zero otherwise while dummy community development banks (DRDB) takes on a value of one for community development banks and zero otherwise. Based on the literature, we expect that both coefficients should be negative.

Economic growth: We expect that during good period, banks' profits would rise as borrowers are more willing to borrow to finance either their consumption or investment. Given that during the period of this study, Indonesia experienced fluctuating economic performance, we expect that economic growth has a positive influence on ROA.

Equity: It is the intention of Indonesian government to increase the equity amount of

banks to at least 100 million rupiah to withstand economic uncertainties. This study will test the appropriateness of this decision. If smaller banks are less likely to withstand severe economic downturn, then the coefficient of equity, which will be proxy by Dummy equity (DEQUITY), should be negative. However, it could also be argued that smaller banks will be more responsible in their lending activities since they know that imprudent lending decision would more likely to lead to bankruptcy as compared to larger banks.

Control variables: There are six financial control variables that are used in this study. Those variables are:

Capital structure: A bank that carries a high level of debt may face the problem of not being able to service the debt in the future, hence affecting the performance. Capital structure is measured by equity to total assets.

Banks risk: Loans to total assets is variable measuring bank risk. Loans ratio measured by the ratio of total loans to total assets. Loans are the main interest-bearing assets and therefore the expected influence on bank profitability is positive.

Efficiency: The more efficient is the bank, the higher will be the profit. Cost efficiency is measured by operating cost to total assets. Cost efficiency is expected to have a negative influence on profitability because efficiency banks expected to operate at lower cost.

Size: Size also plays a role in performance. The bigger is the size of a bank, the better would be the performance of a bank. Size is measured by natural log of assets.

To test if government ownership influences performance of banks, the following model is estimated:

$$ROA_{it} \text{ and } ROE_{it} = \alpha_0 + \alpha_1 * DCG_{it} + \alpha_2 * DRDB_{it} + \alpha_3 * DEQUITY_{it} + \alpha_4 * EG_{it} + Z^T \alpha + e_{it}$$

Where

ROA_{it} : Return on asset of bank *i* in period *t*

ROE_{it} : Return on equity of bank *i* in period *t*,

DCG_{it} : A dummy variable that takes on a value of one if bank *i* is controlled by central government in period *t*, zero otherwise,

DRDB_{it} : A dummy variable that takes on a value of one if bank *i* is controlled by community development banks in period *t*, zero otherwise,

DEQUITY_{it} : A dummy variable that takes on a value of one if bank *i* has equity in low of 100 million rupiah in period *t*, zero otherwise,

EG_{it} : Economic growth experienced in period *t* where economic growth is measured by GDP growth rate,

Z : A matrix of control variables, which included, total equity to total assets (EQUITY), total loans to total assets (LOANS), operating costs to total assets (COSTS), natural logarithm of total assets (ASETS).

e_{it} : error term of bank *i* in period *t*.

RESULTS AND DISCUSSIONS

Table 2 provides summary statistics for the variable that are used in the analysis. The profit rates have a mean -2.82% of total assets and a standard deviation of 19.58%. The mean negative because economic crisis in Indonesia. The mean ROE is 7.90% but with the standard deviation of 124.13%, the high values of standard deviation indicated that the profitability of

the sample banks is somewhat inconsistent. the mean value of EQUITY is 8.45% and a standard deviation of 23.81%. LOANS is 45.02% and a standard deviation of 24.97%. COSTS is 14.15% and a standard deviation of 22.46% and the mean ASSETS is 271.40% but with the standard deviation of 178.1%. EG is range from 4.70% to -13.10%. DCG, DRDB and DEQUITY are dummy variable in this study.

Table 2 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROE ¹	205	-3.9454	9.5348	.079028	1.2413145
ROA	222	-1.4028	.6312	-.028179	.1958420
EQUITY	222	-1.3144	.7206	.084488	.2380966
LOANS	222	.0214	1.7744	.450244	.2497181

COSTS	222	.0035	1.7203	.141464	.2246097
ASSETS	222	24.0808	32.2131	27.139816	1.7811467
EG	222	-13.10	4.70	-2.4667	7.68646
DCG	222	.00	1.00	.0405	.19767
DRDB	222	.00	1.00	.2027	.40292
DEQUITY	222	.00	1.00	.7883	.40944

¹For ROE, 17 bank-year are dropped since these banks have negative total equity.

Table 3 Correlation Matrix

	ROE	ROA	DCG	DRD B	DEQUIT Y	EG	EQUIT Y	LOANS	COS TS	ASSET S
ROE	1.00									
ROA	-0.29	1.00								
DCG	0.37	-0.33	1.00							
DRDB	-0.09	0.14	-0.10	1.00						
DEQUIT Y	0.05	-0.13	-0.12	0.04	1.00					
EG	-0.12	0.21	0.00	0.00	-0.14	1.00				
EQUITY	-0.41	0.80	-0.44	0.03	-0.07	0.15	1.00			
LOANS	0.03	-0.20	0.17	-0.03	-0.05	0.19	-0.15	1.00		
COSTS	0.30	-0.67	0.40	-0.10	0.01	-0.21	-0.67	0.12	1.00	
ASSETS	0.30	-0.44	0.45	-0.02	-0.53	-0.02	-0.52	0.03	0.37	1.00

Table 3 provides information on the degree of correlation between the explanatory variables used in the multivariate regression analysis. The matrix shows that in general the correlation between the variable that are used in the analysis is not strong suggesting that

multicollinearity problem are either not severe or non-existent. Kennedy (1998) points out that multicollinearity is a problem when the correlation is above 0.80, which is not the case here.

Table 4 Regression Without Adjusting And With Robust Standard Errors

Variable	OLS without standard errors		OLS with robust standard errors	
	ROA	ROE	ROA	ROE
Constan	.48992 0.000***	-2.9321 0.163	.48992 0.012**	-2.9321 0.308
DCG	.07241 0.009***	1.4078 0.002***	.0724 .089*	1.4078 0.065*
DRDB	.03461 0.003***	-.20969 0.269	.03461 0.000***	-.20969 0.233
DEQUITY	-.06295 0.000***	.41097 0.107	-.06295 0.001***	.41097 0.106
EG	.00121 0.057*	-.01080 0.301	.00121 0.061*	-.01080 0.274
EQUITY	.28332 0.000***	-1.2170 0.020**	.28332 0.000***	-1.2170 0.073*
LOANS	-.06565 0.001***	-.11315 0.724	-.06565 0.000***	-.11315 0.660
COSTS	-.13548 0.000***	-.12802 0.784	-.13548 0.007***	-.12802 0.891
ASSETS	-.01647 0.000***	.11046 0.116	-.01647 0.013**	.11046 0.263

R-squared

	0.7292	0.2362	0.7292	0.2362
Adjusted R-squared	0.7190	0.2076	0.7190	0.2076
Prob > F	0.0000	0.0000	0.0000	0.0000
Number observation	222	222	222	222

*, ** and *** denote significance at the 10%, 5% and 1% level, respectively, p-value in parentheses

Table 4 presents the pooled regression results without adjusting standard errors and with robust standard errors for heteroscedasticity. When we test for heteroscedasticity using Breusch-Pagan test, we find that we can reject the null hypothesis of equal variances. Thus, a better estimation model should account for heteroscedasticity Table 4 reports the results based on adjusted standard errors using heteroscedasticity-adjusted standard error. We find that all coefficients are significant for ROA and two coefficients are significant for ROE. To ensure that there is no problem of multicollinearity, variance inflation factor (VIF) are estimated and since the results show that the VIF are below 10. Outlier problem improvement with 0.5 percent truncated approach (Fama & French, 1992). The results show that in term of bank ownership, community development banks have ROA of 3.46% higher than private banks and it is significant at 1% and central government bank have ROA of 7.24% higher than private banks and it is significant at 1%. These results seem surprising from agency theory as managers of community development banks have no ownership interest in banks. Thus we expect that there would be higher agency problem for these types of banks. However, positive coefficient of community development banks could be explained in terms of their lending activities. These banks lend to government staff and it is very difficult to terminate the employment contract of government staff. Thus these types of customers have the ability to pay even during economic downturn and the risk of community development bank is less. Second explanation is that since they only serve in one province they have specialized knowledge about that province. A third explanation is that since the survival of local government depends on the performance of local banks, mismanagement of these banks might indicate the incompetence of local elected officials. Thus the officials have more incentives to monitor local banks. Also, government banks have positive relationships with performance.

We find that community development banks perform better than private banks and government owned banks perform as good as private banks. The results consistent with Zhang and Yang (2011) show that the performance if majority of banks stock is in the hand of government are better than banks owned by private bank during finance crisis in China. But the results contradicts findings to Reaz (2005), Beck et al. (2005), Berger et al. (2005), Micco at al. (2007), Omran (2007), Iannotta et al. (2007) and Farazi et al. (2011). EG is positively influence on ROA. The result is consistent to Davydenko (2010), Mirzaei et al. (2011) and Sufian and Habibullah (2012) provides support the argument of positive association between economic growth and banking sector performance. EQUITY is negative and significant influence on ROE. The emperical finding is consistent with Berger and Bonaccorsi (2006), Mashharawi and Al-Zu'bi (2009), Barry et al. (2011) and Hoffmann (2011) found that the negative effect on equity ratio ROE. This indicates that the cost of the agency consistent with the theory that the increased use of debt can increase ROE. Therefore EQUITY is positively influence on ROA. The emperical finding is consistent Davydenko (2010), Barry et al. (2011) and Sufian and Habibullah (2012). LOANS shows a negative and significant influence on ROA. The emperical finding is consistent with Bashir (2003) and Beck et al. (2005). COSTS shows a negative and significant influence on bank profitability. The results imply that an increase (decrease) in these expenses reduces (increases) the profits of banks operating in Indonesia during economic crisis. The emperical finding is consistent with Beck et al. (2005), Mashharawi and Al-Zu'bi (2009) and Mirzaei et al. (2011). ASSETS is a negative and significant influence on ROA. The emperical finding is consistent with Sufian and Chong (2008) and Mirzaei et al. (2011).

Table 5 Regression With Random Effects

Variable	ROA	ROE
Constan	.48878 (0.000)***	-2.9321 (0.161)
DCG	.07347 (0.024)**	1.4078 (0.002)***
DRDB	.03512 (0.011)**	-.20969 (0.267)
DEQUITY	-.07029(0.000)***	.41097 (0.105)
EG	.00106 (0.060)*	-.01080 (0.300)
EQUITY	.29541 (0.000)***	-1.2170 (0.019)**
LOANS	-.05702 (0.002)***	-.11315 (0.723)
COSTS	-.13181 (0.000)***	-.12802 (0.783)
ASSETS	-.01643(0.000)***	.11046 (0.115)
R-squared	0.7283	0.2362
Prob > chi2	0.0000	0.0000
Number observation	222	222

*, ** and *** denote significance at the 10%, 5% and 1% level, respectively, p-value in parentheses

Finally, we estimate our model using random effects. The results in table 5 confirm the previous findings where the community developments banks and central government banks perform better. Government banks maintain the positive relationships with performance. The results of random effects model are similar to the results of pooled OLS without standard errors and OLS with robust standard errors.

CONCLUSIONS

This study examine the performance of community development banks, government owned banks and private banks during economic crisis in Indonesia from 1997 to 1999. Our study uncovers interesting results. We find that community development banks and central government banks perform better than private banks. This study also shows that economic growth plays a significant factor in explaining banks performance. However, the study also reveals that dummy for equity is a negative and significant impact on ROA. It shows that Indonesian government decision to introduce equity of 100 billion rupiah might affect bank performance. EQUITY, LOANS, COSTS and ASSETS have influence bank performance during economic crisis in Indonesia.

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