FACTORS INFLUENCING THE PROFITABILITY OF LISTED INDONESIAN COMMERCIAL BANKS

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Abstract: *Profitability for the bank is very important.This study used external and internal factors as variables to measure the profitability of banks in Indonesia.Data were collected from the Indonesian Capital Market Directory, the JSX Watch, Indonesia Stock Exchange and Index Limited Liability Company in Indonesia, for the period 2010-2015.In analyzing the data, regression analysis were used by first seeking the fulfillment of assumptions of the Ordinary Least Square (OLS) regression analysis. On the parsimony principle for the purposes of forecasting public banks profitability in Indonesia it can be used two independent variables, namely Debt Equity Ratio (DER) and Return on Equity (ROE). The independent variables DER and ROE simultaneously have significant positive effect on public banks Profitability (ROA) in Indonesia with the ability to explain the variations in public banks profitability prices amounted to 97.1%.*

Keywords: *Profitability (ROA), External factor, internal factor.*

INTRODUCTION

Profitability for the bank is very important, because profit is one factor to improve the capital adequacy aside additional capital from the owners of banks or other investors. The capital adequacy for banks describe the health of a bank, and at this time in Indonesia capital adequacy is determined by the FSA (Financial Services Authority) with a minimum requirement of 8% to 14% according to the risk of the bank (Regulation of the Financial Services Authority No. 11/POJK.03/2016). Healthy banks is one of the economic development of a country. Because the wellness banking system and bank's healthiness are very important in a country financial system, it is very important to know the factors that affect the performance of the banking sector.

In general, to measure the performance of banks can be done by looking at the bank's profits (Albertazzi and Gambacorta, 2009). Profitability of a bank is affected by the factors, external and internal factors (Scott and Arias, 2011). In this study used as an indicator ofbank's profitability is Return on Assets (ROA) (Almazari, 2014).

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RESEARCH METHODOLOGY

Profitability reflects how the bank does business and health, profitability can be measured by internal factors (Dietrich and Wazenried, 2010). The use of public banks in this study are based on the following considerations:

1. Public banks must obey disclosure regulations required by Bank Indonesia (BI) and the Otoritas Jasa keuangan (OJK).

2. Public banks more transparent than non public banks. This condition makes the objectivity of data becomes higher.

3. Public banks reported variables analyzed in this study as follows:

    (a) RSR = Reserves Requirement
    (b) AIR = Annual Inflation Rate
    (c) GDP = Gross Domestic Product
    (d) ROA = Return On Asset
    (e) DAR = Debt Asset Ratio
    (f) DER = Debt Equity Ratio
    (g) ROE = Return On Equity
    (h) OPM = Operation Profit Margin
    (i) NPM = Net Profit Margin

As the dependent variable in this study is ROA. In connection with the time span of the data used in this study (2010-2015), there were 15 public banks eligible for analysis. In analyzing the data, simple and multiple regression analysis were used by first seeking the fulfillment of assumptions of The Ordinary Least Squares (OLS) regression analysis.

RESULTS AND DISCUSSION

As shown in Table 1 (simple regression), it is known that significant independent variable are the DAR, DER, ROE, OPM and NPM. The independent variables that have a major influence on the bank's ROA is ROE, followed by variable OPM, NPM, and DER.

From the results of Table 1 it can be seen that ROE significantly affect ROA with R Square of 73.4%, and Pearson Correlation 0.857 (strong correlation), it is means the increase in ROE will affect the increase in ROA. OPM significantly affect ROA with R Square of 65.5%, and Pearson Correlation 0.809 (strong correlation) mean increase in OPM will affect the increase in ROA. NPM significantly affect ROA with R Square of 64.10%, and Pearson Correlation 0.801 (strong correlation)

Tabel 1
Results of Simple Linear Regression Analysis

Independent variable	Pearson correlation	Sign	R Square	Unstandardized coefficient	Standardized coefficient	t
RSR	.130	.490	.017	.116	.028	.694
AIR	–.018	.705	.000	–.004	–.012	–.380
GDP	.154	.376	.024	–.044	–.033	–.890
DAR	–.456	.126	.208	–1.466	–.060	–1.546
DER	–.498	.000	.248	–.149	–.410	–10.055
ROE	.857	.000	.734	.110	.852	27.960
OPM	.809	.015	.655	.017	.244	2.483
NPM	.801	.024	.641	–.019	–.230	–2.299

means increasing the NPM will affect the increase in ROA. DER significantly affect ROA with R Square of 24.8%, and Pearson Correlation –0.498 (correlation is not strong) means an increase in DERwill decline in ROA.

From Table 2 below it can be seen that the full model indicate a multicollinearity problem between independent variables. VIF value of variable OPM and NPM which are over 10 means to have an indication of multicollinearity problem on this model. To solve the problem of multicollinearity, it is necessary to drop the independent variable which has VIF over 10, so that the combination of the research model shown in Table 3.

From Table 3, it is known that the full model involving all the independent variables obtain R Square 97.4%, but has a multicollinearity in independent variables OPM and NPM, and the significant variables are ROE, OPM and NPM.

Table 2
Regression coefficients of Full Model

	Unstandardized Coefficients		Standardized Coefficients			Multicollinearity Statistics	
Model	B	Std. Error	Beta	t	Sign.	Tolerance	VIF
1 (Constant)	1.888	1.273		1.483	.142		
RSR	.166	.167	.028	.694	.490	.193	5.183
AIR	a–.004	.011	–.012	–.380	.705	.341	2.928
GDP	–.44	.050	–.33	–.890	.376	.238	4.194
DAR	–1.466	.948	–.060	–1.546	.126	.209	4.778
DER	–.149	.015	–.410	–10.055	.000	.192	5.220
ROE	.110	.004	.852	27.960	.000	.343	2.915
OPM	.017	.007	.244	2.483	.015	.033	30.425
NPM	–.019	.008	–.230	–2.299	.024	.032	31.381

Dependent Variable: ROA

Table 3
Summary of Output

Model	Predictors	R Square
Full Model	Constant), RSR, AIR, GDP, DAR, DER, ROE*, OPM*, NPM*	.974
Combination 1	(Constant), RSR, AIR, GDP, DAR*, DER*, ROE*, OPM*	.973
Combination 2	(Constant), DAR*, DER*, ROE*, OPM	.972
Combination 3	(Constant), DAR, DER*, ROE*	.972
Combination 4	(Constant), RSR, AIR, GDP, DAR, DER*, ROE*, NPM	.972
Stepwise	(Constant), ROE*, DER*	.971

* Significant variables for each model

Model combination 1 produce R Square which acquire 97.3%, with no multicollinearity problem of the independent variables. Using model combination 1, indepedent variables whichare significantare DAR, DER, ROE and OPM, while the independent variables RSR, AIR and GDP are not significant. Using combination Model 2, as significant independent variable are the DAR, DER and ROE, while unsignificant independent variable is OPM. Model combination 2 showed no multicollinearityproblem and obtain R Square of 97.2%. Model combination 3 and 4 showed DER and ROE as significant independent variable, as shown in Table 4 and Table 5.

From Table 4 it can be seen that the model combination 3 does not have a multicollinearityproblem in the independent variable and the R Square of 97.2%, independent variable DARisnot significant, while independent variable DER and ROE are significant. Table 5 for combination 4, also shows R Square 97.2 %with the independent variables RSR, AIR, GDP, DAR, and NPM are not significant, and only indepedent variable DER and ROE are significant.

From the model 1 to the model stepwise showing that independent variables DER and ROE always have significantly effect to ROA. One of the principles of scientific research states that a scientific study should be able to explain the

Table 4
Regression coefficients of Combination 3

Model	Unstandardized Coefficients		Standardized Coefficients			Multicollinearity Statistics	
	B	Std. Error	Beta	t	Sign.	Tolerance	VIF
(Constant)	2.867	.698		4.107	.000		
DAR	–1.742	.896	–.072	–1.944	.055	.239	4.176
DER	–.155	.013	–.850	–11.503	.000	.240	4.175
ROE	.110	.002	.132	.105	.000	1.000	1.000

Dependent Variable: ROA

Table 5
Regression coefficients of Combination 4

Model	Unstandardized Coefficients		Standardized Coefficients			Multicollinearity Statistics	
	B	Std. Error	Beta	t	Sign.	Tolerance	VIF
1 (Constant)	2.364	1.297		1.822	.072		
RSR	.087	.172	.021	.508	.613	.194	5.159
AIR	–.001	.011	–.002	–.057	.955	.347	2.879
GDP	–.022	.051	–.016	–.426	.671	.247	4.051
DAR	–1.837	.966	–.076	–1.902	.061	.215	4.660
DER	–.152	.015	–.418	–9.974	.000	.193	5.187
ROE	.109	.004	.846	27.013	.000	.345	2.897
NPM	.000	.003	.005	.167	.867	.315	3.175

a. *Dependent Variable:* ROA

phenomenon or elaborate on the problems studied in a simple but clear (parsimony) (Sugiarto and Nursiana,Adinoto, 2016), then in this research model used is the Stepwise model , as shown in Table 6 below.

Model Stepwise, with two independent variables (DER and ROE) and using multiple regression results obtained R Square 97.1% which is a pretty good result for explaining the combination effect of variables DER and ROE to ROA. Model to estimate the ROA on a public bank obtained from multiple regression analysis is follows:

$$Y = 1516 – 0.177DER + 0.110ROE$$

The regression coefficient for DER is –0.177. The sign of regression coefficient is negative and show an inverse relationship between DER and ROA. As the DER increase, the ROA decrease. The negative sign for this coefficient is logically accepted due to DER is liability of the bank. If cost of DER increase IDR 1, and the other indepedent variable constant, the ROA will decrease IDR 0.177. The ROE variable shows a direct relationship, shown by the regression coefficient of 0.110.

Table 6
Regression coefficients of Stepwise

Model	Unstandardized Coefficients		Standardized Coefficients			Multicollinearity Statistics	
	B	Std. Error	Beta	t	Sign.	Tolerance	VIF
1 (Constant)	1.516	.068		22.274	.000		
DER	–.177	.007	–.486	–26.546	.000	1.000	1.000
ROE	.110	.002	.850	46.402	.000	1.000	1.000

Dependent Variable: ROA

As the ROE increase, the ROA increase. ROE is the amount of net income returned as a percentage of shareholders equity. Return on equity measures a bank's profitability by revealing how much profit a bank generates with the money shareholders have invested. ROE increase IDR 1 and the other indepedenpent variable constant, ROA will increase IDR. 0.110

CONCLUSIONS

According to the principle of parsimony for the purposes of forecasting banks ROA can be used only two independent variables, namely DER and ROE.

The independent variables DER and ROE simultaneously have positive significant effect on the public banks company's ROA in Indonesia with the ability to explain the variations in public banks amounted to 97.1%.

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