



The Effect of Corporate Governance on Firm Performance in the Manufacturing Sector in Indonesia and Singapore

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Abstract. His study aims to analyze the effect of board independence, board size, foreign ownership, institutional ownership, and gender diversity on board with control variable firm size, firm age, and leverage on firm performance measured by Tobin's Q and ROA in manufacturing sector companies listed in Indonesia and Singapore Stock Exchange in the 2017–2021 period. The results of this study show that board independence, board size, foreign ownership, institutional ownership, and gender diversity on board with control variable firm size, firm age, and leverage have a significant effect on firm performance in Indonesia and Singapore.

Keywords: corporate governance · characteristic of board directors · ownership structure

1 Introduction

Transparency, fairness, responsibility, accountability, independence, and equality are the principles of good corporate governance designed to gain investor confidence. Companies must assure returns to investors by minimizing investment risk as it contributes to company performance [1]. Good corporate governance provides the ability to work up a competitive advantage and company efficiency and effectiveness. Corporate governance mechanisms can reduce agency problems by aligning the interests of managers and directors' and shareholders' interests [2].

Based on Naghavi [3] research, the proportion of female directors has a positive effect on company performance. When measured using accounting-based effectiveness of the company's ability to exploit its assets, the proportion of female directors plays a significant positive role. The results also show that the presence of female directors strongly influences a company's investment decisions. Thus, companies tend to have greater quality assets, eventually leading to significant accounting returns. Murhadi [4] also argued that the ratio of female directors will outcome in a more controlled and cautious company in enterprise risky expansion. With greater corporate control, profitability performance is also better.

2 Research Method

This study is basic research that aims to verify the effect of independent variables on the dependent variable. The dependent variable used is company performance (FIRMPERF) in the form of Tobin's Q and ROA. Tobin's Q is calculated by summing market capital with total liabilities, then dividing by total assets. ROA is calculated by dividing net income by total assets. While in the independent variables, board independence (BI) is measured by the number of board independence divided by the total boards, the size of the board of directors (BS) is measured by the number of boards in the company, share ownership by foreign investors (FO) is measured by the percentage of share ownership by foreign investors, institutional share ownership (IO) is measured by the percentage of institutional share ownership in the company, and the proportion of female directors (PFD) is measured by the percentage of women who are members of the board of directors. As well as control variables, firm size is measured by the natural logarithm of total assets, firm age is measured from the current year minus the year the company was founded, and leverage is measured by total liabilities divided by total assets. The equation used is as follows:

$$FIRMPERF_{i,t} = \alpha + \beta 1. BI_{i,t} + \beta 2. BS_{i,t} + \beta 3. FO_{i,t} + \beta 4. IO_{i,t} + \beta 5. PFD_{i,t} + \beta 6. FSize_{i,t} + \beta 7. FAge_{i,t} + \beta 8. Lev_{i,t} + e$$

After selecting all manufacturing sector companies listed on the Indonesia Stock Exchange and Singapore Stock Exchange for the period 2017–2021, the data were processed using E-views 12, and classical assumption tests were carried out, namely the normality, multicollinearity, and heteroscedasticity tests. In addition, Chow and Hausman's tests were also carried out to choose the suitable model.

3 Results and Discussion

After conducting the Chow and Hausman test, the companies in Indonesia and Singapore sample used a fixed effect model for the dependent variables TBQ and ROA. Furthermore, the heteroscedasticity test was carried out by comparing the t-statistic value with the standard error in the fixed effect regression test results - ordinary method and the fixed effect regression test results - White cross-section method. In the sample of companies in Indonesia and Singapore (TBQ and ROA), heteroscedasticity was found. To overcome this, testing was executed using the White cross-section method in the coefficient covariance method section and the GLS Weight section using cross-section weight.

Table 1 shows that Board Independence has a significant negative effect on Tobin's Q. This research is in line with research conducted by Murhadi [4] and Palaniappan [5] on Tobin's Q. This negative result can arise because board independence has insufficient experience and knowledge of company purpose which ultimately results in the company's encumbrance increasing compared to the advantage obtained from the presence of Board Independence. Meanwhile, the ROA variable has an insignificant negative effect. According to Winter [6], the effect of share ownership by foreign investors on company performance can occur if the average number of shares owned by foreign investors is

Table 1. ROA regression analysis result.

Var	Tobin's Q			ROA			
	Coefficient	t-statistic	Probability	Coefficient	t-statistic	Probability	H
C	20.11	11.16	0.00	-0.52	-1.89	0.13	
BI	-0.48	-3.26	0.031**	0.06	7.37	0.00**	+
BS	-0.06	-4.11	0.01**	-0.00	-0.58	0.59	-
FO	0.5	3.5	0.02**	-0.00	-0.76	0.48	+
IO	-0.15	-3.2	0.03**	0.01	1.42	0.22	+
PFD	-0.82	-7.54	0.00***	-0.09	-3.71	0.02**	+
FSIZE	-0.57	-8.89	0.00***	0.03	2.90	0.04**	
FAGE	-0.02	-9.34	0.00***	-0.00	-5.76	0.00***	
LEV	0.69	8.49	0.00***	-0.11	-8.88	0.00***	
R2	0.9309			0.962993			
Adj R2	0.91			0.952228			
F-stat	46.309			89.45093			
F-stat	0			0			

Note: * Significance at 10%, ** Significance at 5%, *** Significance at 1%

51%. In this study, the average shares owned by investors are only 32%; thus, it has no influence on company performance. This study's results align with research conducted by Winter [6] and Al-Gamrh [7].

Institutional ownership has a significant negative effect on Tobin's Q and an insignificant positive on ROA. The negative results of Tobin's Q can be caused by the view of "passive monitoring" institutional investors only as passive monitors and do not intervene in management decisions [8]. However, from the research sample of 57 companies, not all companies have a large percentage of institutional share ownership. One is PT Intanwijaya Internasional Tbk (INCI), with institutional share ownership for the 2021 period amounting to 0.34%. Meanwhile, shareholders who have family connections own shares amounting to 69.86%. Firm Size has a significant positive effect on company performance as measured by ROA. Large companies commit a better performance than small companies, so their financial performance is also improving. Firm size can also mirror the resources owned by the company that are used to improve company performance [9]. Firm Age has a significant negative effect on ROA. The longer the company is established, the higher the costs to take care of the company's assets used in business activities [9]. While on the ROA variable, leverage has a significant negative relation to company performance. Table 2 shows that Board Independence has a significant positive effect on company performance.

Board Size has an insignificant positive effect on Tobin's Q. This study's results align with research conducted by Vo [10], who found that the insignificant results were due to two excuses. First, there is a lack of teamwork and complementarity between

non-executive and executive board directors. Second, a larger board size includes many non-executive members, so they are less able to understand the company's situation.

Foreign ownership has an insignificant positive effect on Tobin's Q and an insignificant negative effect on ROA. Winter [6] also found the same outcome, where the effect of share ownership by foreign investors on company performance can happen if the average share owned by foreign investors is 51%. While the average shares owned by foreign investors in this study is 14%, so it does not affect company performance.

Institutional ownership has a significant positive effect on Tobin's Q. According to Kao [11], Institutional investors can support independent commissioners in their supervisory function to improve company performance. The Proportion of Female Directors has an insignificant positive effect on Tobin's Q, and a significant negative effect on ROA. This study's results align with research conducted by Naghavi [3] on Tobin's Q and Al-shammari [12] to ROA. In the composition of the board of directors, female directors are more connected with family relationships than with their competence [6]. Firm Size has a significant negative effect on Tobin's Q. This study's results align with research conducted by Kao [11]. Large firms have tricky bureaucratic problems and are prone to agency problems resulting in reduced performance. However, it has a significant positive effect on ROA. Firm Age has an insignificant negative relationship with Tobin's Q and ROA. This is because younger companies can identify newer technology to manage their performance [13]. While, leverage has a significant positive effect on Tobin's Q and a significant negative effect on ROA. This significant positive result is an

Table 2. The Results of The Regression Test of Tobin's Q and ROA Singapore

Var	Tobin's Q			ROA			
	Coefficient	t-statistic	Probability	Coefficient	t-statistic	Probability	H
C	19.4036	4.6572	0.0096	-1.2233	-3.7121	0.0206	
BI	0.4360	7.3943	0.0018***	0.1491	5.7984	0.0044***	+
BS	0.0153	0.9728	0.3857	-0.0077	-11.2933	0.0004***	-
FO	0.3107	1.5898	0.1871	-0.1209	-0.8468	0.4448	+
IO	0.6631	5.4503	0.0055***	0.0530	1.0802	0.3408	+
PFD	0.2803	2.0131	0.1144	-0.1267	-7.5610	0.0016***	+
FSIZE	-0.6844	-4.3120	0.0125**	0.0496	3.0614	0.0376**	
FAGE	0.0004	0.0543	0.9593	-0.0051	-1.8527	0.1376	
LEV	0.9252	6.7811	0.0025***	-0.0911	-1.9025	0.1299	
R2	0.836397			0.787476			
Adjusted R2	0.783992			0.718865			
F-stat	15.96049			11.47752			
P-F-stat	0.000000			0.000000			

Note: * Significance at 10%, ** Significance at 5%, *** Significance at 1%

implementation of the MM II (Tax Shield) theory, where debt can be used to minimize taxes because interest can be used for the tax discount.

4 Conclusion

Based on the results of this study, it was found that in Indonesia, foreign investors' share ownership and leverage have a positive and significant effect on Tobin's Q. While board independence, board size, institutional share ownership, proportion of female directors, firm size and firm age have no significant effect on Tobin's Q. While on ROA, board independence has a positive and significant effect. However, board size, foreign investor share ownership, institutional share ownership, proportion of female directors, firm age, firm size, and leverage have no significant effect on ROA. While in Singapore, board independence, institutional share ownership, and leverage have a positive effect on Tobin's Q. For the variable board size, foreign investor share ownership, proportion of female board of directors, firm size, and firm age have no significant effect on Tobin's Q. In the ROA variable, independent commissioners and firm size have a positive and significant effect on ROA. While the size of the board of directors, foreign investor share ownership, the proportion of the female board of directors, firm age, and leverage have no significant effect on ROA.

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