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This study investigated the effect of institutional and managerial ownership on investment efficiency as a proxy for firms' performance. The effect of these two variables was investigated in the context of IFRS adoption. Since accounting policies underlying IFRS are more market friendly than US accounting standards, it is expected that full convergence to IFRS in 2012 may increase financial statement quality in Indonesia. Contrary to prediction, the evidence showed that converging reporting standard into IFRS does not increase investment efficiency. This suggests that IFRS adoption in Indonesia does not increase financial reporting quality. Furthermore, the impact of managerial ownership on investment efficiency remains unchanged following IFRS adoption. This suggests that managerial ownership does not align the interest of stockholders and managers. As predicted, however, monitoring function of institutional investors is increased after the adoption.

Keywords: Adverse Selection; Institutional Ownership; Investment Efficiency; Managerial Ownership; Moral Hazard

Document Type: Research Article

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IFRS Adoption In Indonesia and Its Implication On The relationship
Between Ownership Structure and Investment Efficiency

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Abstract

Agency theory predicts that separation of ownership and control might lead to moral hazard and adverse selection. In such a situation, investment decision making is not optimal and might put the company and stockholders in danger. Absence of control may induce managers to opportunistically use firms' resources for personal benefit and invest in highly risky projects with negative present value. Therefore, monitoring function by institutional investors are necessary to minimize manager dysfunctional behavior. It is also deemed necessary to offer firm's stock to managers to align the interest of managers and stockholders. This study investigates the effect of institutional and managerial ownership on investment efficiency as a proxy for firms' performance. The effect of these two variables is investigated in the context of IFRS adoption. Since accounting policies underlying IFRS are more market friendly than US accounting standards, it is expected that full convergence to IFRS in 2012 may increase financial statement quality in Indonesia. Contrary to prediction, the evidence shows that converging reporting standard into IFRS does not increase investment efficiency. This suggests that IFRS adoption in Indonesia does not increase financial reporting quality. Furthermore, the impact of managerial ownership on investment efficiency remains unchanged following IFRS adoption. This suggests that managerial ownership does not align the interest of stockholders and managers. As predicted, however, monitoring function of institutional investors is increased after the adoption.

Keywords: *Investment efficiency, moral hazard, adverse selection, institutional ownership, managerial ownership.*

Introduction

Prior studies on the effect of IFRS on the financial reporting quality in Indonesia found inconsistent results. Suprihatin and Tresnaningsih (2013)¹⁰ examine the effect of IFRS adoption using value relevance as a proxy for financial reporting quality and samples period of 2006-2011 find evidence supporting the positive effect of IFRS on value relevance of earnings and equity. Wulandari and Lastanti (2015)¹¹ examine the effect of IFRS by comparing the level of earnings management in 2011 and 2012. They found no evidence to support negative effect of IFRS on earnings management. Maiyarni, et al. (2014)¹² examine the effect of IFRS on firms' value from 2007 to 2012 and failed to provide any significant changes in firm value. Nundini and Sri Lastanti (2014)¹³ also failed to identify the impact of IFRS on earnings management in period of 2010 to 2011.

This study attempts to provide additional evidence on the role of IFRS to enhance financial reporting quality in Indonesia. Unlike previous studies in Indonesia, this study uses

investment efficiency as a proxy for financial reporting quality. If the convergence of IFRS affect the quality of financial statements, than investment efficiency is predicted to increase post IFRS adoption. More importantly, this study also investigates the impact of IFRS on the relations between ownership structure and investment efficiency.

Hypothesis Development

Financial Reporting Quality and Investment Efficiency

Prior to full convergence of IFRS in 2012, financial reporting practices in Indonesia are dominantly affected by US accounting standards (SFAS). Up to 2009, there were only 4 IASs adopted in Indonesia. But in following years, the adoption of IAS standards increased to 18 in 2010-2011 (Suprihatin and Tresnaningsih, 2013). At substantive level, IFRS and SFAS are very much the same. Assumptions, concepts, and principles underlying IFRS are considerably affected by SFAS. But in some areas, the two standards have significant differences. Among others are accounting for leasing and asset valuation policy.

IFRS is commonly said to be principle-based standards and SFAS is rule-based standard. Therefore, many believe IFRS allows greater flexibility for managers to use his discretion to determine which accounting methods to be employed. On the other hand, SFAS attempts to restrict managers from using his discretions to intervene accounting process through describing details to be considered when preparing financial statements. Although both standards have attempted to improve the reliability of the financial statements, IFRS provide greater rooms for earnings management practices. As largely discussed in accounting literatures, earnings management can hide the true picture of firms' financial performance and thus harm financial reporting quality.

Despite the inherent weaknesses, IFRS encourage companies to choose fair value methods to better reflect firms real profitability and financial position. It is largely discussed in literature that fair value methods increase value relevance of financial reports. If this is true, then investment efficiency will be picked up. Therefore, it is difficult to argue convincingly the effect of IFRS on investment efficiency. This study takes position that positive effect of IFRS on financial statements are more dominant than their negative effects. Based on these arguments, the correlation between IFRS and investment efficiency is stated as follows :

H1: Investment efficiency is higher after the convergence of IFRS Institutional Ownership

Previous studies in several countries support the positive effect of institutional ownership on investment efficiency and other performance measures (Garcia et al . , 2010)²⁶. Research by Luthfiardi (2012)²⁷ using firms listed in Indonesian Stock Exchange found that institutional ownership positively affects investment efficiency. The role of institutional investors in monitoring manager activities is expected to be stronger after the convergence of IFRS. As described earlier, IFRS open wider space for managers to use discretion in preparing financial statements. Aware of the potential abuse of accounting discretion, institutional investors will be more inclined to heighten its monitoring functions. The relationship between institutional ownership and investment efficiency before and after the convergence of IFRS can be expressed as follows :

H2A: Institutional ownership positively affects investment efficiency before the convergence of IFRS.

H2B: The positive effect of institutional ownership on investment efficiency is more pronounced after the convergence of IFRS.

Managerial Ownership

Previous empirical studies suggest positive correlation between managerial ownership and firm performance (Palia and Lichtenberg, 1999³¹; Hubbard and Palia, 1995³²; Hermalin and Weisbach (1991)³³; Morck et al., 1988)³⁴. But it should be noted that a variety of performance measures have been used in these studies. Tobin's Q is used in Morck et al. (1988)³⁵. While Denis et al. (1994)³⁶ and Hubbard and Palia (1995)³⁷ use stock returns as a proxy for firms' performance. Others like Palia and Lichtenberg (1999)³⁸ and Maximovic and Phillips (1995)³⁹ employ the level of productivity to capture firms' efficiency. In contrast to empirical studies carried out abroad, managerial ownership studies using Indonesian stock market data documented inconsistent results (Wiranata and Nugrahanti, 2013⁴⁰).

Company's stock ownerships are expected to decrease managers' opportunistic behaviors. Managers will be motivated to work harder to ensure stockholders' interest are maintained. Managerial ownerships are also expected to boost the quality of financial reporting because managers are more concerned on providing reliable financial statements to convince market participants about firms future prospects. The combined effect of IFRS in reducing managers' opportunistic behaviors and increasing value relevance of financial reports are expected to strengthen the relationship between managerial ownership and investment efficiency. Hypotheses below are stated to reflect this relationship.

H3A: Managerial ownership positively affects investment efficiency prior to the convergence of IFRS.

H3B: The positive effect of managerial ownership on investment efficiency is more pronounced after the convergence of IFRS.

Data and Sample selection

Firms samples are all companies listed on the Indonesia Stock Exchange in 2009-2013 with complete information to measure variables, except banking, insurance and other financial institutions. Firms with no complete information on institutional and managerial ownership are excluded from the sample. Based on these criteria, there are 454 observations available to test hypotheses. Annual reports are hand collected from official website of Indonesia Stock Exchange and firms' official websites.

Model

Regression model to test the hypotheses are stated as follows :

$$\text{Effisien}_t = \beta_0 + \beta_1 \text{IFRS}_t + \beta_2 \text{Kep_Man}_t + \beta_3 \text{IFRS} * \text{Kep_Man}_t + \beta_4 \text{Kep_Inst}_t + \beta_5 \text{IFRS} * \text{Kep_Inst}_t + \beta_6 \text{Kas}_t + \beta_7 \text{Lev}_t + \varepsilon_t$$

Where Effisien_t = Investment Efficiency at time t; IFRS_{it} = Dummy variable that takes 1 if the observations are taken from 2012-2013, and 0 otherwise; Kep_Man_{it} = Managerial ownership at time t; $\text{IFRS} * \text{Kep_Man}_{it}$ = interaction variable at time t ; Kep_Inst_t = institutional ownership at time t; $\text{IFRS} * \text{Kep_Inst}_t$ = interaction variable at time t, Kas_t = operating cash flow; Lev_t = debt to equity ratio.

Variable Measurement

a) Investment efficiency

Following Biddle et al. (2009)⁴¹ and Gomariz and Ballesta (2014)⁴², this study assumes growth opportunity proxied by sales growth is a major factor that encourages companies to make investment. In other word, invesment is a function of sales growth. Residual of the model reflects a deviation from the ideal level of investment. Negative (positive) residual reflects under (over) investment. Below is a regression model to relate investment and sales growth.

$$\text{Investment}_t = \beta_0 + \beta_1 \text{Sales Growth}_t + \varepsilon_t$$

Where,

Investment_t = Total investment in year t, defined as the net fixed asset increase scaled by total asset; Sales Growth_t = Percentage change in sales from year t-1 to t.

Regression residual is then transformed into an absolute value and multiplied by -1. This procedure is applied to facilitate interpretation of the results. Thus, the higher the transformed residual, the higher the investment efficiency.

b) IFRS

A dummy variable that takes 1 if observations belong to 2012 to 2013 and 0 if they belong to 2009-2011 .

c) Institutional Ownership

Institutional ownership reflects the number of stocks owned by institutional investors . This variable is measured by dividing the number of stocks held by institutions by outstanding shares.

d) Managerial Ownership

Managerial ownership reflects the number of stocks owned by managers. This variable is measured by dividing the number of stocks owned by managers by outstanding shares .

e) Cash and leverage (control variable)

Both of these variables are included in the model to control for amount of cash and debt. Fail to do so, may increase the likelihood of errors in variables that may affect the validity of results. Cash is the amount of cash balance at year t divided by total assets and leverage is total debt to total assets ratio .

Descriptive statistics

Descriptive statistics are stated in Table 1.

Mean and median for investment efficiency are -0.005 and -0.011 respectively. These suggest that firms samples experience under- investment . However, the distribution is more skewed to the right. Meanwhile, mean and median for institutional ownership and managerial ownership are 0.671 and 0.067 respectively, suggesting majority of stocks are owned by institutional investors.

Table 1
Descriptive Statistics

	Effisien	Inst_Own	Man_Own	IFRS	Kas	Lev
Mean	-0,005	0,671	0,067	0,467	0,127	0,477
Median	-0,011	0,684	0,026	0,000	0,084	0,480
Standard Deviation	0,026	0,184	0,113	0,500	0,125	0,202
Minimum	-0,050	0,220	0,000	0,000	0,000	0,040

Table 1
Descriptive Statistics

	Effisien	Inst_Own	Man_Own	IFRS	Kas	Lev
Mean	-0,005	0,671	0,067	0,467	0,127	0,477
Median	-0,011	0,684	0,026	0,000	0,084	0,480
Standard Deviation	0,026	0,184	0,113	0,500	0,125	0,202
Minimum	-0,050	0,220	0,000	0,000	0,000	0,040
Maksimum	0,060	1,000	0,700	1,000	0,720	0,980
N = 375						

Median for institutional ownership is almost equal to its mean suggesting that institutional ownership variable distribution approaches a normal distribution. Mean for IFRS is 0,467 indicating that 46.7 % of observations come from 2012 and 2013. On average, cash and debt level are 12.7 % and 47.8 % of total assets.

Results

Table 2 displays the results of regression analysis. Note that conclusion to reject or support the hypotheses is based on one tailed-test. As stated before, hypothesis one predicts that investment efficiency is higher after the convergence of IFRS. Table 2 shows IFRS has p-value of 0.324 suggesting that converging accounting standards into IFRS does not improve financial reporting quality. Hence H1_A is not statistically supported. Hypothesis H2_A predicts that prior to the convergence of IFRS institutional ownership positively affect investment efficiency. To test the hypothesis, the interaction term between IFRS and institutional ownership is added into the model. Since IFRS is a dummy variable with observations belong to 2009-2011 as a reference group, then the coefficient for institutional ownership (Kep_Inst) represents the effect of institutional ownership on investment efficiency prior to the convergence of IFRS. Results shown in Table 2 rejects hypothesis H2_A. Although significant at 10% level but the coefficient is negative.

Table 2
The effect of ownership structure and IFRS on investment efficiency

Variabel	Coefficient		T	Sig. (one tailed)	VIF
	B	Std. Error			
Constant	-,026	,002	-11,995	0,000	
IFRS	,001	,001	,456	0,324	1,008
Kep_Man	,009	,009	,968	0,167	2,235
IFRSxKep_Man	,007	,014	,529	0,298	2,300
Kep_Inst	-,009	,005	-1,581	0,057	2,264
IFRSxKep_Inst	,016	,008	1,892	0,029	2,386
KAS	,010	,006	1,822	0,034	1,104

DER	,004	,004	1,127	0,130	1,144
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The results are not consistent with Garcia et al. (2010)⁴³, Zheka, (2003)⁴⁴ and Walsh and Whelan (2000)⁴⁵.

Hypothesis H2_B predicts the positive effects of institutional ownership on investment efficiency is stronger after the implementation of IFRS in Indonesia. The coefficient for interaction term (IFRS * Kep_inst) shown in table 2 has a positive direction with p-value of 0,029. Hence, hypothesis H2_B is statistically supported. Positive effect indicates correlation between institutional ownership and investment efficiency is higher following IFRS adoption and consistent with several studies such as Verawati et al. (2015)⁴⁶ and Luthfiardi (2012)⁴⁷.

Hypothesis H3_A predicts managerial ownership is positively related to investment efficiency. It can be seen from table 2 that even though the coefficient for managerial ownership (Kep_Man) is positive as predicted, regression coefficient is not statistically significant with p-value of 0.167. The result suggests that prior to IFRS adoption, stocks ownership are not effective tools to align the interest of managers and stockholders. Several previous studies in Indonesia also failed to find a correlation between managerial ownership and firms performance (among others are Wiranata and Nugrahanti (2013)⁴⁸, Aprina (2012)⁴⁹ and Hutahuruk (2011)⁵¹. However, Verawati et al. (2015)⁵¹, Luthfiardi (2012)⁵², Sofyaningsih and Hardiningsih (2011)⁵³ provide opposite results. The inconsistent results are probably caused by different managerial ownership percentage used among studies. Morck et al. (1988)⁵⁴ argue managerial ownership might negatively affect performance if managers are offered a large percentage of stocks. Large managerial ownership can encourage low quality managers to exploit firms' resources for personal gain. Thus hypothesis H3_A is not supported statistically

Hypothesis H3_B predicts positive effect of managerial ownership is more pronounced after the convergence of IFRS. As can be seen from table 2, the coefficient for interaction term between IFRS and managerial ownership is not statistically significant with p-value of 0.298. The result indicates correlation between managerial ownership and investment efficiency has not changed after IFRS convergence. In addition, cash to asset ratio improve investment efficiency.

Conclusion

Managers do not always act rationally and responsibly. Without adequate monitoring mechanisms managers will fall into a moral dilemma (moral hazard) leading to opportunistically use of firm resources. Managers will tend to excessively invest in projects that do not provide sufficient economic benefit or do not give positive net present value. Such a dysfunctional behavior can be detrimental to company success and harm stockholders' interests. To prevent from being accused of mismanagement, managers select accounting policies that will hide firms' poor performance. Low quality of financial reports result in incorrect investment decisions (adverse selection) and causing investment inefficiency. This study examines the role of institutional investors and managerial ownership to reduce moral hazard and adverse selection.

Regression analysis shows converging accounting standards into IFRS does not improve investment efficiency. This means that IFRS do not affect financial reporting quality. Insignificant results are also found for managerial ownership. In particular, managerial ownership does not enhance investment efficiency. But as predicted, the role of

institutional investors in monitoring firms' performance is more effective following IFRS adoption.

Limitation and future research

In this study, investment efficiency is measured using a model developed by Biddle et al. (2009)⁵⁵. The model is too simplistic because it assumes that sales growth is the only factor that affects investment. In fact, many variables might have effects on investment, one of which is free cash flow. In addition, the validity of results is very much dependent on the accuracy of model to detect over (under) investment. Therefore, inferences should be made cautiously.

Further research needs to consider alternative models to estimate investment efficiency. The model used in Lenger et al. (2011)⁵⁶ can be considered as one alternative. They add an interaction term between negative growth and prior year investments to estimate investment efficiency. The model is more realistic than the one proposed in Biddle et al. (2009).

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