Reciprocal Relationship Between Institutional Ownership And Firm Performance

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ABSTRACT
This study was conducted to see how the relationship between institutional ownership and corporate performance. In addition, to determine whether it is true that the effect of institutional ownership on the performance of non-conglomerate firms will be better than the conglomerate. This study uses secondary data of 260 companies that have been listed on the Jakarta Stock Exchange for the period from 2007 to 2011, not including the new company listings in the period, in addition to the financial company is also not included in this study due to its financial statements that have different characteristics with other companies in general. Data processing using panel data, which uses the combined information of time series and cross section. Empirical model used is Two Stage Least Square (2SLS). Results of the study confirmed their positive reciprocal relationship between institutional ownership and corporate performance. And also the effect of institutional ownership on firm performance is greater in non conglomerate firms compared to conglomerate firms.

Keywords: institutional ownership, firm performance

INTRODUCTION
Institutional ownership is one of the factors that may affect the company's performance. Lack of ownership by institutional investors is likely to encourage more optimal monitoring the performance of management, because the shares represent a source of power that can be used to support the existence or otherwise of the management (Shleifer & Vishny, 1986). Company performance is influenced by several factors, such as ownership structure (managerial ownership and institutional ownership). The higher institutional ownership, the stronger the external control of the company. Pozen (1994) reveals some of the methods used by institutional ownership can influence managerial decision making. Lack of ownership by institutional ownership leads to a more optimal control on the performance of the management company, so the company's performance will increase.

Company's performance can also be improved if the institution is able to be an effective monitoring tool, because the higher the institutional ownership would increase external oversight of the company. Brous & Kini (1994) stated that the tight control by institutional investors is highly dependent on the size of the investment made. Barthala et al. (1994) also found that institutional ownership replace managerial ownership in the controlling agency cost because managerial ownership is directly involved in the management activities of the company, of course, this can lead to conflict of interest where there is no transparency in the oversight of the company's performance.

Some studies even found inconsistent results. Brickely et.al (1988) found that the presence of institutional ownership will enhance company performance. Instead, Pound (1988) find that institutional ownership actually have a negative impact on corporate performance. It is also of interest to the emergence of conglomerates in Indonesia, given the very dominant role in the national economy. Often referred to as a giant conglomerate in the field of business that has a very wide network and complex.

However, this conglomeration often get the spotlight and criticism given the relationship with the authorities is very close, in fact there is a mutual dependency between employers
and authorities to support each other and complement each other. Recognized that the role of conglomerates in Indonesia has been able to raise the national economy and grow and grow parallel to the international conglomerate that is generally in the form of multinational companies are often referred to as transnational corporations (Waluya, 1995).

**LITERATURE REVIEW**

Institutional investors’ real wealth involvement in corporations is their initial motivation to actively monitor management behavior, and such monitoring function becomes cost effective. Monitoring their equity stakes provides an incentive for management to be more responsive to shareholder concerns; it provides the institutional investor with improved insights into firm performance and can help with the selection of future investment targets. The hypothesized positive relationship between institutional ownership and corporate performance is well established from Jensen and Meckling’s (1976) agency cost theory.

The relationship between ownership structure and firm performance has been the focus of previous academic research by Berle and Means (1932), with the hypothesis that the correlation should be observed between the spread of share ownership and corporate performance. They explore the evolution of business through the lens of law and economics, and said that in the modern world which legally has ownership of the company have been separated from their control. This is the basis for corporate governance, corporate law and institutional economics. Their view was challenged by Demsetz (1985), who argued that the company’s ownership structure should be considered as endogenous outcome of decisions that reflect the influence of shareholders and trading in the stock market. When the owner of a private company decides to sell the shares, they basically decided to change the ownership structure of the company and most likely make a more diffuse structure. The next stock trade will reflect the wishes of potential and existing owners who will change the ownership of shares in the company. In the case of corporate takeovers, they will become the owner has direct influence and dominate the ownership structure of the company.

Ownership on performance testing has been conducted on concentration of ownership (Berle & Means, 1932) or management ownership, or the family shareholders. In addition, the research focuses on institutional investors who usually become the center of CEO turnover and compensation (Parrino et al., 2003) and corporate governance (Gillan & Starks, 2000). McConnell and Servaes (1990) conducted an empirical test of the relationship between ownership and corporate performance. Apart from the non-linear relationship between insider ownership and performance, they conclude that institutional ownership is positive and significantly related to firm value is proxied by the value of Tobin’s Q. Cornett et al. (2004) focus on the empirical test of institutional ownership and reported a positive relationship with the operational cash flow.

**CONCEPTUAL AND MEASUREMENT ISSUES**

**Institutional Ownership**

Institutional Ownership is defined as the proportion of institutional investors in the form of (company) who purchased shares traded companies (Roberts & Yuan, 2006). According Tarjo (2008), institutional ownership is defined as ownership of company shares are owned by institutions / organizations such as insurance companies, banks, investment companies, and other institutional ownership. According Wening (2009) the greater ownership by financial institutions, the greater the power of sound and the drive to optimize the value of the company. Shares of companies that go public on the Jakarta Stock Exchange (JSX) owned by many parties, such as public (domestic and foreign), institution (domestic and foreign), insider (commissioners, directors, and managers), employees, and foundations in the company. Each shareholder has the responsibility to monitor the agent, the directors and managers entrusted with the running of the company, to work in accordance with the agreement made with, which is to support the mutual
prosperity. Therefore, institutional ownership and insider ownership can be used to reduce agency cost incurred.

The Financial Economists Roundtable (1998) believe that the increase in institutional ownership is a very positive phenomenon. There are several advantages of which have professionalism in analyzing information in order to test the reliability of the information, and have a strong motivation to implement tighter controls over activities that occur within the company.

**Firm Performance and Control Variables**

Corporate performance is a display state of the company as a whole over a period of time and is the result or achievement is affected by the operations of the company in utilizing available resources (Helfert, 1996). As according to Mulyadi (1999) are the company’s performance periodically determining the operational effectiveness of the company, part of the company and its employees by objectives, standards, and criteria predetermined.

Two measures of performance are collected and used to value firm profitability: a proxy of Tobin’s Q and the accounting-based return on equity (ROE). According to Demsetz and Villalonga (2001), these two measures differ in two respects. First, the accounting-based profit measure (ROE) is backward-looking while Tobin’s Q is forward-looking. Another difference is that accounting profit only partially involves estimates of future events in the form of depreciation and amortization. Tobin’s Q, however, is influenced by a wide range of unstable factors, such as investor psychology and market forecasts.

Enterprise performance measurement tool used in the study of Tobin’s Q. Calculation of Tobin’s Q is using a lot of formulas. Morck et al. (1998) and McConnell and Servaes (1990) using the replacement cost (replacement cost) as the denominator (the denominator). While Himmelberg et al. (1999), Holderness et al. (1999), and Demsetz and Villalonga (2001) uses the book value of total assets as the denominator. And in Indonesia, as a developing country it used book value of total assets as a denominator. And using the market value of equity as the numerator (the numerator). But the limitations of existing data, in this study the Tobin’s Q would like research Klapper and Love (2004), Durnev & Kim (2005), which is the ratio of stock market value + total liabilities divided by the book value of total assets. Stock market value (market capitalization) is calculated by the number of shares multiplied by the stock price at the end of the year.

Addition of two variables, several other control variables will also be used in the research include:

1. Institutional ownership (IE), using the percentage of shares held by financial institutions
2. Firm performance, measured using Tobin’s Q (Q), which is the ratio of stock market value + total liabilities divided by the book value of total assets.
3. Conglomerate and non-conglomerate (KongIE), which will be connected with institutional ownership and corporate performance.
4. Firm size (SIZE), measured by the logarithm of market capitalization (market capitalization).
5. Financial leverage (LEV), a ratio that measures the degree to which the company's assets have been financed by the use of debt, which is total liabilities divided by total assets.
6. Market risk (BETA), measured by the coefficient β obtained through regression of monthly stock returns against market model obtained from the listed company on the Jakarta Stock Exchange in the period prior to the study (2003 to 2007) and current research (2007 to 2011), with tolerance research for 3 years minimum.
7. Firm-specific risk (STD ERROR), measured as the estimated standard error of the regression calculation monthly stock returns against market model obtained from the listed company on the Jakarta Stock Exchange in the period prior to the study (2003 to 2007) and current research (2007 to 2011), with tolerance research for 3 years minimum.
8. Age (AGE), measured from the companies go public until the data are studied.
Data and Models

Data Processing Model

Pooled Least Square Model. Pooled least squares estimation is a technique for the combination of time series data and cross section. Pooled least squares technique can be written as follows (Gujarati, 2004):

\[ Y_{it} = \alpha + \beta X_{it} + \epsilon_{it}, \text{ where } i = 1, 2, ..., N \text{ and } t = 1, 2, ..., T \]

Where \( N \) is an individual, and \( T \) is the time. This technique assumes that the value of the constant (\( \alpha \)) and the independent variable coefficients (\( \beta \)) does not change (constant) for each time and individuals. However, this assumption is not in accordance with the intended use of panel data. Pooled least square overlook the influence of individual characteristics so that this technique is not a top choice when processing data panel.

Fixed Effect Model. Estimation using a fixed effect model may be based on certain assumptions regarding the constant, the slope coefficient and error term. Fixed effect model is written as follows:

\[ Y_{it} = \alpha_i + \alpha_X d + \alpha_3 d_3 + \alpha_4 d_4 + \beta_1 X_{2i} + \beta_2 X_{3i} + \beta_3 X_{4i} + \mu_i \]

Where \( n \) is a dummy variable for the individual, \( i \) is the individual samples, and \( t \) is time. This model uses dummy variables so that the fixed effect model is also called the least squares dummy variable (LSDV).

Random Effect Model. Random effect models assume a constant as a random variable with an average value of \( \beta 1 \) rather than as a fixed variable. Random effect model is written as follows (Gujarati, 2004):

\[ Y_{it} = \beta_1 + \beta_3 X_{2i} + \beta_4 X_{3i} + \mu_{it}, \text{ where } i = 1, 2, ..., N \text{ and } t = 1, 2, ..., T \]

with \( \beta_1 = \beta_1 + \epsilon_i \)

Where \( N \) is an individual, and \( T \) is the time. \( \epsilon_i \) is a random error term with mean value is zero and the variance \( \sigma_i^2 \). Then the above equation can be rewritten as follows:

\[ Y_{it} = \beta_1 + B_2 X_{2i} + B_2 X_{3i} + w_{it} \]

with \( w_{it} = \epsilon_i + \mu_{it} \)

Error term consists of two components, namely \( \epsilon_i \) for individual error components and error components \( \mu_{it} \) to a combination of time and individuals. Error component (\( \epsilon_i \)) is assumed to have no correlation with the independent variable.

Two Stage Least Square Regression Model

In this study, the model will use two stage least squares (2SLS) to examine / investigate the relationship between institutional ownership and corporate performance. Systematically similarities between institutional ownership and corporate performance can be formulated as follows:

\[ 1E_{it} = a_{10} + a_{13}Q_{it} + a_{14}SIZE_{it} + a_{15}LEV_{it} + a_{16}BETA_{it} + a_{17}STD \ ERR \ OR_{it} + a_{18}AGE + \epsilon_{it} \quad (1) \]

\[ Q_{it} = a_{20} + a_{21}E_{it} + a_{22}Kong \ E_{it} + a_{23}SIZE_{it} + a_{24}LEV_{it} + a_{25}BETA_{it} + a_{26}STD \ ERR \ OR_{it} + \epsilon_{it} \quad (2) \]
EMPIRICAL RESULTS

The first step is carried out calculations on the first stage of the 2SLS model of IE (institutional ownership). This stage is to calculate the equation using the fixed effect and random effect. Followed by using the Hausman Test to determine the fixed effect or random effect. In addition to the model of IE, also performed at the first stage of the 2SLS model of Q (corporate performance). This stage is to calculate the equation using the fixed effect and random effect. Followed by using the Hausman Test to determine the fixed effect or random effect.

By using a significance level of 5%, the results of the Hausman test for both these variables are presented in Table 1.

**Table 1 - Hausman Test for 2SLS First Stage**

<table>
<thead>
<tr>
<th>Model</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE</td>
<td>0.0000</td>
<td>Significant</td>
</tr>
<tr>
<td>Q</td>
<td>0.0000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

From the above table is obtained significant results that elect to use the fixed effect compared with the random effect. After obtaining the results of the fixed effect, both models are models of IE and Q model calculating the pooled least squares and fixed effect. And do Chow Test to select using pooled least squares or fixed effect. The results are seen from the value of the F statistic is smaller than the significance level of 5% then choose to use fixed effect. From the results of the diagnostic test to determine the presence or not heteroscedasticity problem in IE models and also on the model Q. Heteroscedasticity test is performed using xttest3.

**Table 2 - Heteroscedasticity Test for 2SLS First Stage**

<table>
<thead>
<tr>
<th>Model</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE</td>
<td>0.0000</td>
<td>Heteroscedasticity</td>
</tr>
<tr>
<td>Q</td>
<td>0.0000</td>
<td>Heteroscedasticity</td>
</tr>
</tbody>
</table>

In addition to heteroscedasticity test, autocorrelation test on both models follows using Wooldridge Test.

**Table 3 - Autocorrelation Test for 2SLS First Stage**

<table>
<thead>
<tr>
<th>Model</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE</td>
<td>0.1006</td>
<td>No autocorrelation</td>
</tr>
<tr>
<td>Q</td>
<td>0.0000</td>
<td>Autocorrelation</td>
</tr>
</tbody>
</table>

From Table 2 and Table 3, for the model of IE are heteroscedasticity problem but no autocorrelation problem. Unlike the case in the model Q heteroscedasticity and autocorrelation problems are both present in the equations. For IE models, to eliminate the problem of heteroscedasticity can be done by simply adding robust. As for the Q models, to eliminate the problem of heteroscedasticity and autocorrelation can be done by adding xtregar. After both heteroscedasticity and autocorrelation problem is eliminated, it will obtain the value of each Q and (IE) for each equation.

The second step is calculation of the second stage of the 2SLS calculation. And Q values (IE) included in the calculation of the fixed effect and random effect. To determine the use of fixed effect or random effect by performing Hausman Test.

**Table 4 - Hausman Test for 2SLS Second Stage**

<table>
<thead>
<tr>
<th>Model</th>
<th>Result</th>
<th>Kesimpulan</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE</td>
<td>0.0000</td>
<td>Significant</td>
</tr>
<tr>
<td>Q</td>
<td>0.0000</td>
<td>Significant</td>
</tr>
</tbody>
</table>
From Table 4 using the significance level of 5%, then the result is significant, which uses fixed effect. Furthermore dilakukan the same test as the first stage of the 2SLS heteroscedasticity test to see if the problem still appears heteroscedasticity or not.

**Table 5 – Heteroscedasticity Test for 2SLS Second Stage**

<table>
<thead>
<tr>
<th>Model</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE</td>
<td>0.0000</td>
<td>Heteroscedasticity</td>
</tr>
<tr>
<td>Q</td>
<td>0.0000</td>
<td>Heteroscedasticity</td>
</tr>
</tbody>
</table>

Not only heteroscedasticity test but also autocorrelation test is done once again by using the Wooldridge test to see if there is an autocorrelation problem or not.

**Table 6 – Autocorrelation Test for 2SLS Second Stage**

<table>
<thead>
<tr>
<th>Model</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE</td>
<td>0.0000</td>
<td>Autocorrelation</td>
</tr>
<tr>
<td>Q</td>
<td>0.1006</td>
<td>No Autocorrelation</td>
</tr>
</tbody>
</table>

Opposite to the results of first stage, the second stage model of IE is having problems heteroscedasticity and autocorrelation, while the Q models only and there are no problems for heteroscedasticity and autocorrelation. For IE models, to eliminate the problem of heteroscedasticity and autocorrelation can be done by adding xtpce. As for the Q models, to eliminate the problem of heteroscedasticity can be done by adding robust. Thus the results obtained for each model IE and the model Q.

After the diagnostic process such data over the obtained results of calculations for the IE model as shown in Table 7.

**Table 7 – IE Model Calculation Results**

<table>
<thead>
<tr>
<th>IE</th>
<th>Coef.</th>
<th>Std. Err.</th>
<th>z</th>
<th>P &gt;</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q_predictrob</td>
<td>5.631663</td>
<td>0.0993198</td>
<td>56.70</td>
<td>0.0000</td>
<td>5.437 – 5.826327</td>
</tr>
<tr>
<td>Size</td>
<td>-9.434595</td>
<td>0.1653483</td>
<td>-57.06</td>
<td>0.0000</td>
<td>-9.75867 – -11.0518</td>
</tr>
<tr>
<td>Leverage</td>
<td>-6.251165</td>
<td>0.1096906</td>
<td>-56.99</td>
<td>0.0000</td>
<td>-6.46616 – -6.036176</td>
</tr>
<tr>
<td>Beta</td>
<td>0.4805428</td>
<td>0.0165492</td>
<td>29.04</td>
<td>0.0000</td>
<td>0.448107 – 0.5129787</td>
</tr>
<tr>
<td>StdError</td>
<td>1.851585</td>
<td>0.0405241</td>
<td>45.69</td>
<td>0.0000</td>
<td>1.772159 – 1.931011</td>
</tr>
<tr>
<td>Age</td>
<td>0.2885226</td>
<td>0.0053226</td>
<td>54.21</td>
<td>0.0000</td>
<td>0.27809 – 0.2989548</td>
</tr>
</tbody>
</table>

Thus the calculation results obtained using the instrument variable (Q) in it. From these results it is said that all the variables contained in the model are SIZE, LEVERAGE, MARKET RISK, RISK-specific FIRM, AGE significant influence using the significance level of 5%. Q value indicates a positive result, then it is said that there is positive between the performance of firms with institutional ownership.

The next step after getting results for Model IE, then performed calculations on the model Q as shown in Table 8.

**Table 8 – Q Model Calculation Results**

<table>
<thead>
<tr>
<th>Q</th>
<th>Coef.</th>
<th>Std. Err.</th>
<th>t</th>
<th>P &gt;</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IE_predictrob</td>
<td>4.820436</td>
<td>1.685913</td>
<td>2.86</td>
<td>0.0050</td>
<td>1.500593 – 8.140278</td>
</tr>
<tr>
<td>Kong.IE</td>
<td>-4.624573</td>
<td>1.776981</td>
<td>-2.60</td>
<td>0.0100</td>
<td>-8.123743 – -1.125404</td>
</tr>
<tr>
<td>Size</td>
<td>1.637581</td>
<td>0.1802107</td>
<td>9.09</td>
<td>0.0000</td>
<td>1.282716 – 1.992446</td>
</tr>
<tr>
<td>Leverage</td>
<td>1.156878</td>
<td>0.1430785</td>
<td>8.09</td>
<td>0.0000</td>
<td>0.8751328 – 1.438623</td>
</tr>
<tr>
<td>Beta</td>
<td>-0.5035313</td>
<td>0.2156444</td>
<td>-2.34</td>
<td>0.0200</td>
<td>-0.9281708 – -0.0788917</td>
</tr>
<tr>
<td>StdError</td>
<td>0.2439652</td>
<td>0.3234601</td>
<td>0.75</td>
<td>0.4510</td>
<td>-0.3929812 – 0.8809116</td>
</tr>
</tbody>
</table>
The results obtained for variable Kong.IE, SIZE, LEVERAGE, MARKET RISK very significant influence using the significance level of 5%. Value (IE) which showed positive results, it is said that there is a positive effect between institutional ownership and corporate performance. It also said the influence of institutional ownership on the performance of larger companies when companies are included in non-conglomerate. This is evidenced from the Kong.IE coefficient value indicating the relationship between institutional ownership with conglomerate firm is negative.

CONCLUSION AND RECOMMENDATION

The regression results indicate that proved there is a positive reciprocal relationship between institutional ownership and corporate performance which is measured by both Tobin's Q. And also proved that effect of institutional ownership on firm performance is greater when firms are included in non conglomerate.

Advice can be given of the results of this study, especially for those investors who want to invest is very important to look at the institutional ownership in a company. This is because institutional ownership will greatly influence the performance of a company's decision making and when seen between conglomerate and non-conglomerate of the influence of institutional ownership will be a big impact on the company's non conglomerate.

Limitations in this study provides an opportunity for further research in the future to discuss the return with a similar topic. As for some suggestions submitted for further research such as:
1. Companies studied are divided according to each industry sector, examples of manufacturing companies, agribusiness companies, telecommunications companies, and so on.
2. Research can be conducted over a period longer than the period used in the present study.

It is hoped that the results obtained would be nice and stable and reflects the results of each industry sector.

REFERENCES


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