

THE EFFECT OF OWNERSHIP STRUCTURE ON INVESTMENT EFFICIENCY (CASE STUDY IN NON FINANCIAL FIRMS LISTED ON INDONESIA STOCK EXCHANGE IN 2015-2017)

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ABSTRAK/ABSTRACT

The objective of this study is to investigate whether ownership structure and corporate governance affecting the efficiency of investment of listed non-financial firms in Indonesia. Ownership concentration, managerial ownership, management stock option, and mutual funds ownership used as independent variables in this study. Meanwhile, the dependent variable in the research is investment efficiency. Regression analysis is used as a method in analyzing secondary data obtained by using purposive sampling method. Secondary data used in research sourced from the financial statements and annual reports of non-financial companies listed on the Indonesia Stock Exchange in 2015-2017. The result of this research indicates that ownership concentration does not have a significant influence towards investment efficiency. This result also shows that each of managerial ownership and management stock options positively influence investment efficiency. Furthermore, mutual funds' ownership is proven that positively influence the investment efficiency

BACKGROUND

Investment efficiency is a benchmark in determining how well a company invests their assets. The high investment efficiency indicates that the asset has been used by the company more effectively which will have a better effect on company performance, so that it can be used as a measure of company performance (Chen et al., 2017).

The concentration of ownership, or what is commonly called ownership concentration, is a situation where there are controlling shareholders or majority shareholders in a company. Some previous studies stated that high ownership concentration in a company negatively influence the company's investment, that means, if the ownership

concentration gets higher, the investment efficiency of corporate will decrease (Chen et al., 2017; Rashed et al., 2018). Managerial ownership, on the other hand, received differed responses from several previous studies relating to its relationship with corporate governance. Gao and Kling (2008), in their research reveal that managerial ownership could reduce the existence of tunneling activities that could be carried out by management. Rahma (2014) found that managerial ownership brings a negative effect on the leverage or a debt to equity ratio in several Indonesian companies.

Regarding managerial ownership, several companies in Indonesia have provided stock management options compensation and employee stock options as an implementation of the incentive

policy. This is apparently also done in connection with the company's efforts to prevent tunneling activities that may be carried out by management (Gao and Kling, 2008). Jensen and Murphy (1990) provide a recommendation regarding this matter, that companies could make compensation rules to support managers in choosing and carrying out actions that could increase the value of shareholders, even in uncertain conditions and situations and rudimentary supervision. In addition, several studies suggest that although mutual fund ownership is often seen does not have a significant role in corporate governance mechanisms, it turns out to be positively related to company performance (Yuan et al., 2008). However, G. Chen et al. (2006) argue that mutual funds' ownership cannot support company performance if the percentage is low.

The purpose of this study is to investigate the effect of concentration of ownership, managerial ownership, management stock options and mutual fund ownership in influencing investment efficiency. This study also use control variables such as controller, operating cash flow, leverage, revenue growth, and firm size.

THEORETICAL FRAMEWORK AND HYPOTHESIS

There are two types of agency conflicts that are revealed based on the literature: conflict between principal and agent or often referred to as principal-agent conflicts (Meckling, WH and Jensen, 1976) and conflict among the controlling shareholder and minority shareholder (Shleifer and Vishny, 1986). Agency issues that are often discussed are about the possibility of misuse of control rights of controlling shareholders to achieve personal gain. The theory revealed by Shleifer and Vishny (1986) describe agency problems among the non-controlling shareholder (minority shareholders) and controlling shareholders, where controlling shareholders are considered to be capable to take economic advantage for

themselves and strive to always prioritize their interests compared the interests of non controlling or minority shareholders.

Agency theory suggests that an agent could act in ways that will advance his interests, not the interests of the principal, unless there are appropriate corporate governance mechanisms to prevent such actions (Meckling, W. H. and Jensen, 1976). The agency problem that arises is expected to be reduced if the alignment of interests between agent and principal is carried out, with the mechanism of share ownership in the company by management. Management is considered able to conduct tunneling activities that could harm the company, and in turn, harm the shareholders. Therefore, managerial ownership has a role to reduce agency problems between management and shareholders.

The Effect of Ownership Concentration on Investment Efficiency

The company's shareholding structure is an important internal mechanism of a company. The takeover of rights by controlling shareholders has become a major issue which is debated on the Chinese stock market due to the lack of adequate protection from minority investors. (Gao and Kling, 2008). The takeover behavior by controlling shareholders usually involves the misuse of company resources thus jeopardizing investment efficiency (Jiang et al., 2010). A higher concentration of ownership gives controlling shareholders with more power to be able to take over rights owned by minority shareholders, and then in turn have the possibility of jeopardizing the efficiency of the investment. Thus, the first suggested hypothesis is:

H1. Ownership concentration has a negative influence on investment efficiency

The Effect of Managerial Ownership on Investment Efficiency

According to Chen et al. (2009) less than two percent of the outstanding shares of companies listed at the end of 2004 in China were represented by management, foreign and employees

ownership. Previous studies have produced mixed findings about the effect of governance on managerial ownership. Chen (2001) in his research suggest that managerial ownership positively influence the company performance. Gao and Kling (2008) report that tunneling activities by controlling shareholders can be mitigated by managerial ownership. In contrast, Firth et al. (2007) also show that accounting quality is not affected by managerial ownership. Given that agency costs can be reduced by managerial ownership due to the separation of ownership and supervision or control (Meckling, W. H. and Jensen, 1976; Meng et al., 2011), the second hypothesis is formulated as follows:

H2. Managerial ownership has a positive influence on investment efficiency.

The Effect of Management Stock Options on Investment Efficiency

Many Indonesian companies listed on the Indonesia Stock Exchange have a management stock option plan (MESOP) and an employee stock option plan (ESOP) as a form of compensation policy. According to research by Conyon and He (2012), only 2 to 3 percent of publicly listed Chinese companies during 2000 to 2010 were given limited stock and stock options for their CEO's. It still needs to be considered more deeply about whether the provision of management stock option as a compensation mechanism could align the interests between management as a party of the company and as a shareholder, and also improve company performance, such as investment efficiency.

Mehran (1995) and Hanlon et al. (2003) (2003) report in their study that better company performance in the United States is related to providing stock management options. According to Ozkan (2011) similar effects were also found in the UK, while Conyon et al. (2011) in his research found that since the late 1980s corporate governance in United States positively affected by stock options in the and had become popular in Europe from the mid to the late 1990s.

H3. Management stock option has a positive influence on investment efficiency.

The Effect of Mutual Funds' Ownership on Investment Efficiency

Using data from various companies in the United States, Chen et al. (2007) illustrate that corporate governance can be influenced by mutual funds because of the monitoring effects they have. Similar results were found in a study developed by Aggarwal et al. (2011) in US and non-US companies. The result of a study developed by Yuan et al. (2008) produces a finding that the efficiency of listed companies in China can be caused by the effective supervisory function of mutual funds.

Since institutional investors in the Chinese domestic market (including joint investors, insurance companies, trust funds and pension funds) were introduced in 1997, their net amount and value have increased. According to Aggarwal et al. (2015) states that mutual funds are a greater source of funding and have a longer history in the capital market than other institutional investors (insurance companies, trusts and pension funds) so that they can become effective governance mechanisms for companies. Therefore, we assume that investment efficiency positively influenced by mutual funds.

H4. Mutual funds' ownership has a positive influence on investment efficiency.

RESEARCH METHODS

This section discussed about the measurement of research variables, the population, sample selection criteria, and data analysis methods used in this study. More detailed explanation of the research methods used is as written below.

Research Variable

Investment efficiency is the dependent variable in this study. In accordance with a study that was previously examined by Richardson (2006)

in forming a measurement of investment efficiency, we use an investment model that could predict the existence of investment efficiency in a company, then the residual (error) of the model would be used as a proxy to measure the presence of inefficiency of investment.

This study uses the investment model with the aim to find out how much deviation from the desired investment, which is a function of growth opportunities, to be used as a proxy for measuring investment efficiency. Based on Richardson's research (2006), residuals that equal to zero explain the average unexpected investment expenditure on annual observations implied in the investment expenditure expectation model in all companies.

Negative deviation from investment is expected to be referred to as underinvestment, while a positive deviation from investment is expected to be referred to as overinvestment. The use of absolute value of residual to measure investment efficiency is based on the explanation that inefficient investments are low and excessive investments. Therefore, the smaller the value of IE, the higher the efficiency of investment in a company. The model is explained below:

$$INV_{i,t} = \alpha + \beta_1 Q_{i,t-1} + \beta_2 CASH_{i,t-1} + \beta_3 LEV_{i,t-1} + \beta_4 RET_{i,t-1} + \beta_5 AGE_{i,t-1} + \beta_6 SIZE_{i,t-1} + \beta_7 INV_{i,t-1} + \varepsilon_{i,t}$$

$$INV_{i,t} = (FA_{i,t-1} + CIP_{i,t-1} + IA_{i,t-1} + LI_{i,t-1}) / TA_{i,t}$$

Definition:

$INV_{i,t}$	= Investment efficiency
α	= Constant
$\beta_1 Q_{i,t-1}$	= Market capitalization
$\beta_2 CASH_{i,t-1}$	= Net cash flows scaled by the book value of total assets
$\beta_3 LEV_{i,t-1}$	= Leverage
$\beta_4 RET_{i,t-1}$	= Annual market-adjusted return
$\beta_5 AGE_{i,t-1}$	= The difference between current year and the IPO year of given listed firms

$\beta_6 SIZE_{i,t-1}$	= Natural logarithm of total assets
$\beta_7 INV_{i,t-1}$	= Investment efficiency in prior year
$FA_{i,t-1}$	= The sum of fixed assets
$CIP_{i,t-1}$	= Construction in progress
$IA_{i,t-1}$	= Intangible assets
$LI_{i,t-1}$	= Long-term investment
$TA_{i,t}$	= Total assets
$\varepsilon_{i,t}$	= Residual (error)

The shareholding structure of a company illustrates how the authority and impact that shareholders could give to the operational implementation of the company are distributed. Concentrated ownership and diffused ownership are two types of ownership. If most of the company's shares are owned by small groups or individuals, then the company has a concentrated ownership structure. To measure the ownership concentration in a company, this study uses a total percentage of the ten largest shareholdings in the company, which could be calculated by adding up the percentage of the first to tenth largest shareholders (Chen et al., 2017). In Indonesia, information about the percentage of share ownership could be seen in the company's Annual Report.

The existence of managerial ownership is assumed to reduce the emergence of agency problems, because the directors of the company also act as shareholders of the company. Therefore, the interests between directors and shareholders of a company can be triggered to be aligned. This study uses the percentage of shares owned by the company's CEO as managerial representative to measure managerial ownership. The dummy variable is used to represent the subgroup of the sample, the value of 1 (one) will be given if the CEO of a company has his percentage of company shares, and 0 (zero) if not (Chen et al., 2017).

Similar to managerial ownership, incentives in the form of management stock option is considered to minimize the risk of agency problems. With the stock options owned by management,

management as the owner of the company's stock options will try to improve the company's performance, so that they could meet their expectation regarding shareholder return. This certainly, at the same time, could adjust the interests between management and shareholders. The third independent variable in this study, management stock option, is measured using a dummy variable, value of 1 (one) will be given if the company uses an incentive-based compensation mechanism, and 0 (zero) if not.

With consideration of the previous matters, mutual funds are expected to be a monitoring tool for company performance because it is one of the institutional investors that is considered to have a longer history and also has a larger form than other institutional investors. The fourth independent variable, mutual funds' ownership, is measured using a dummy variable. A value of 1 (one) will be given if mutual funds hold shares in the company, and 0 (zero) if not (Chen et al., 2017).

This study uses five control variables, the controller, operating cash flow, leverage, revenue growth, and company size. Controller is a dummy variable illustrated with a value of 1 (one) if a foreign or private entity controls the company and 0 (zero) if it is the opposite (government/state-owned enterprises). Operating cash flow is calculated using the ratio of operating cash flows to the company's total assets. The ratio of debt to existing capital owned by the company is used to measure the leverage. Revenue growth is calculated by comparing the income/sales of the company with the income/sales of the previous year. Company size could show the size of the company according to its market capitalization. The size of a company could be shown by several aspects, including total assets. Company measurements are carried out in order to distinguish large companies from small companies quantitatively. This variable is calculated using natural logarithms of the total assets of the company.

Sample Determination

Non-financial firms listed on IDX are the population used in this study. The sample was chosen using purposive sampling method, which is to choose sample based on the characteristics previously set by researcher. Criteria that must be met include:

1. Consistent non-financial firms listed on the IDX in 2015, 2016 and 2017.
2. The company uses December 31 as the end of the year or the closing date of books during 2015, 2016 and 2017.
3. The company discloses data and information that is appropriate and necessary to support the research.

This study uses a type of secondary data sourced from Bloomberg, for data of year 2016 and 2017 obtained from the official website of Indonesia Stock Exchange (IDX), www.idx.co.id, while for data of year 2015 is obtained through the official website of each company.

Analysis Method

Multiple regression analysis is used as a method to test each research hypothesis. The use of multiple regression is to determine the relationship between the dependent variable and several independent variables. The collected data is then processed using SPSS 23.

$$IE_{i,t} = \alpha_0 + \alpha_1 TOP_{i,t} + \alpha_2 MO_{i,t} + \alpha_3 INCTV_{i,t} + \alpha_4 MF_{i,t} + \alpha_5 CTR_{i,t} + \alpha_6 OCF_{i,t} + \alpha_7 LEV_{i,t} + \alpha_8 GROWTH_{i,t} + \alpha_9 SIZE_{i,t} + \varepsilon_{i,t}$$

Where :

$IE_{i,t}$	=Investment Efficiency
α_0	= Constant
$\alpha_1 TOP_{i,t}$	=Ownership concentration
$\alpha_2 MO_{i,t}$	= Managerial ownership
$\alpha_3 INCTV_{i,t}$	=Management stock option
$\alpha_4 MF_{i,t}$	= Mutual funds' ownership
$\alpha_5 CTR_{i,t}$	= Controller
$\alpha_6 OCF_{i,t}$	= Operating cash flow
$\alpha_7 LEV_{i,t}$	= Leverage
$\alpha_8 GROWTH_{i,t}$	= Revenue growth
$\alpha_9 SIZE_{i,t}$	= Firm size
$\varepsilon_{i,t}$	= Error

If the ownership concentration, managerial ownership, management stock

option, mutual funds' ownership affect investment efficiency as predicted, then the value of α_1 is positive and the value of $\alpha_2, \alpha_3, \alpha_4$ are negative.

RESULTS AND DISCUSSION

Description of Research Sample

Based on the criteria that must be met in the purposive sampling method and outliers that are carried out to obtain the maximum results, the total sample used is 46 which could be seen in Table 1.

Table 1
Research Object

Description	Total
1. Firms listed on Indonesia Stock Exchange (IDX) in 2017	586
2. Financial firms listed on Indonesia Stock Exchange (IDX) in 2017	(157)
3. Firms that do not provide necessary information needed for research (2017)	(387)
4. Firms that do not provide necessary information needed for research (2016)	(10)
5. Firms that do not provide necessary information needed for research (2015)	(15)
Total firms	17
Research sample (3 years)	51
Outliers	(5)
Total research sample	46

Description of Variables

The following are the results of descriptive statistics of the research data. Descriptive statistics is performed to obtain a general description of each variable, the dependent, independent and control variables.

Table 2
Descriptive Statistics

	N	Mean	Standard Deviation
IE	46	0,0826	0,06608
TOP	46	76,103	13,09395
OCF	46	0,0588	0,08707
LEV	46	1,3952	1,11199
GROWTH	46	0,0636	0,33677
SIZE	46	30,334	1,24864

Source: SPSS Output (2018)

Based on descriptive statistics shown in Table 2, the value of investment efficiency (IE) as the dependent variable in this study has an average value of 0.0826 and has a standard deviation of 0.06608. This data means that the average IE value in the sample used is 0.0826. A smaller IE value depicts a higher efficiency of a company's investment. Conversely, the greater the value of IE, the smaller the investment efficiency in the company. The concentration of ownership is measured by percentage of the company's ten largest shareholders, and it has an average value of 76.1034, and a standard deviation of 13.09395. It could be interpreted that the average of the top ten percentages of shares in companies that are sampled in this study was 76.1034 percent. The mean and standard deviation value of OCF or operating cash flow measured by calculating the ratio of total operating cash flow to total assets is 0.0588 and 0.08707. This shows that the sample company has an average total operating cash flow of total assets of 0.0588.

The mean of leverage is 1.3952 which means that the average ratio between the total debt of the company to the equity of the company being sampled is 1.3952 times. The income growth ratio in this study sample has a mean value of 0.0636 and a standard deviation of 0.33677. The size of the company in this study was measured using the natural logarithm of total assets, and this variable has a mean and standard deviation of 30,334 and 1,24864. Dummy variables are also used in this study, namely those that are used to measure managerial ownership, management stock option and mutual funds' ownership. In addition, one of the control variables in this study, the controller, is also measured using a dummy variable. The dummy variable in this study is not explained in descriptive statistical analysis, because it only uses the value of 0 and 1 for each sample.

Discussion of Research Results

The results of hypothesis testing are obtained from the t test or partial test. This test is conducted to determine

whether the dependent variable is influenced by individual independent variables. If the research variable has sig. <0.05, it indicates a significant influence on the dependent variable.

Table 3 shows the coefficient of the independent variable ownership concentration (IE) has a value of 0,000 and the calculated t value of 0.728 with a significance level of 0.471. The next independent variable, managerial ownership (MO) has a coefficient of -0.046 and t value of -2.117 with a significance of 0.041. Meanwhile, the independent variable management stock option (INCTV) has a coefficient of -0.041 and its value of t is -2.153, with a significance level of 0.038. The last independent variable in this study, the mutual funds' ownership (MF) has a coefficient of -0.084 with a level of t-count of -2.816 and a significance level of 0.008.

Table 3
Hypothesis Test

Variable	B	t	Significance ($\alpha=0,05$)
(Constant)	-1,011	-2,704	0,010
TOP	0,000	0,728	0,471
MO	-0,046	-2,117	0,041
INCTV	-0,041	-2,153	0,038
MF	-0,084	-2,816	0,008
CTR	-0,006	-0,234	0,816
OCF	-0,354	-2,989	0,005
LEV	0,010	0,930	0,358
GROWTH	-0,069	-2,349	0,024
SIZE	0,033	2,867	0,007

Source: SPSS Output (2018)

For control variables, the test results shown in Table 3 indicate that the controller variable (CTR) has a coefficient of -0.006 and t count of -0.234 with a significance value of 0.816. The operating cash flow control (OCF) variable has a coefficient of -0.354 and the value of t count is -2.989 and the significance level is 0.005. The next control variable, leverage (LEV) has a coefficient of 0.010 and the value of t count is 0.930 and also the significance level of 0.358. Next, the income growth variable (GROWTH) has a coefficient of -0.069 and the value of t count is -2.394 with a significance level of 0.024. The last control variable, firm size (SIZE) has a coefficient and t count value

of 0.033 and 2.867 with a significance level of 0.007.

Variables that significantly influence investment efficiency (IE) are managerial ownership (MO), management stock option (INCTV), mutual funds' ownership (MF), operating cash flow (OCF), revenue growth (GROWTH), and firm size (SIZE), because the variables mentioned above have a smaller significance value, or less than 0.05. Meanwhile, ownership concentration (TOP), controller (CTR) and leverage (LEV) have a significance value above 0.05, from these results it could be interpreted that the three variables do not significantly influence investment efficiency (IE).

Ownership Concentration and Investment Efficiency

The results of the analysis show that ownership concentration does not significantly influence investment efficiency, so the first hypothesis is rejected. The results of this test are contrary to the research of Chen et al. (2017) which states that investment efficiency negatively affected by ownership concentration. Study developed by Demsetz and Villalonga (2001); Thomsen et al. (2006) also find a similar thing, that ownership concentration does not have a significant effect if it is associated with company performance.

Investment inefficiency can occur because controlling shareholders have greater rights to control the company and the rights of minority shareholders as a result of high concentration of ownership. However, the test results show that ownership concentration in this study does not significantly influence investment efficiency. This is expected to occur because of the ten largest shareholders of the firms that are the object of this research have an average percentage above 50%. This could cause a decrease in the power of the accounting numbers information. According to Wawo (2013), ownership that is concentrated with a percentage level of 40% and 50% does not have a significant effect on the information power of

accounting numbers, so this is considered to be the reason why ownership concentration does not have a significant effect when it is associated with efficiency investment.

In addition, Demsetz and Villalonga (2001) in their research state that the decision of the parties who own shares in the company will be reflected in the company's ownership structure. The ownership structures, both concentrated and scattered, are certainly influenced by the interests of shareholders in achieving maximum profits. So that this could lead to the absence of a systematic relationship of variations in ownership structure with the performance of a company, and in this case, is investment efficiency.

Managerial Ownership and Investment Efficiency

The influence that managerial ownership has on investment efficiency in this study is a positive influence. This means that when management has a high percentage of the company's shares, it can improve investment efficiency. Management as the party that has the authority to manage the company to operate properly so that the company could achieve maximum profits, in this case also plays the role of the company's shareholders. The alignment of interests between management as a company manager and also as an owner could minimize the occurrence of agency problems, which could be caused by differences in priorities between agent and principal.

The alignment of interests can occur because managers who are also company shareholders have an interest in expecting returns that they can get from the number of shares they have in the company. Thus, a manager who is also a shareholder in the company has a mission to improve company performance, and this ultimately will have an effect on better investment efficiency. The statement found in the research of Chen et al. (2017) which states that managerial ownership in a company has a positive effect on investment efficiency because it could reduce tunneling activities, such as

earnings management, also supported by the results of this study.

Management Stock Options and Investment Efficiency

The third hypothesis of this study is that compensation in the form of management stock option has a positive influence on investment efficiency. Thus, giving compensation in the form of stock option to management could harmonize the interests of two parties, in this case, among shareholders and management, in return this also could improve company performance, including the efficiency of company's investment.

In Indonesia, the company's obligation to provide incentive-based compensation in the form of stock management options is not regulated in certain regulations. However, several companies have implemented compensation by providing MSOP or management stock option plan. Management is expected to be able to make a greater contribution to obtain maximum profits that can improve company performance through providing opportunities for management to own a portion of the company's share ownership in the form of stock options.

Similar to managerial ownership, providing compensation in the form of management stock options can also reduce agency problems, because management acts as an agent as well as a principal, so that the interests between managers and shareholders become aligned. The results of the study successfully demonstrate that management stock option compensation has a significant influence on investment efficiency, and that influence is a positive influence. These results support the research of Chen et al. (2017) who in his research state that executive stock option compensation in a company positively affect the investment efficiency.

Mutual Funds' Ownership and Investment Efficiency

The final hypothesis of this study is that mutual funds' ownership positively influenced the investment efficiency.

Similar to previous two hypotheses, the results of the analysis obtained show that investment efficiency significantly influenced by mutual funds', and the influence it has on investment efficiency is a positive influence. Chen et al. (2017) in their study reveal that investment efficiency positively affected by mutual funds' ownership, because mutual funds have a long history in the capital market, so that the corporate governance is expected to be monitored by mutual funds. A long history in the capital market means that mutual funds need to maintain a reputation and also the trust of clients or a group of investors who invest by buying investment units from them, which certainly want a good return in the future as a return on their investment.

Mutual funds are one of the institutional investors that could be called as "sophisticated investors", with that being said, mutual funds have more opportunities to monitor company performance and this could lead to the growth of managerial discipline in their efforts to always increase the value of the company, and this could also mitigate management from conducting various tunneling activities. Thus, the function of mutual funds as part of the ownership structure is to act as the owner who focuses on the current earnings of a company.

CONCLUSION

Investment efficiency has a close relationship with company performance, because a good investment efficiency will reflect a good company performance, and vice versa. If the investment made by the company is efficient, the company could avoid investment inefficiency, whether it is overinvestment or underinvestment. This empirical test is conducted to determine the effects of ownership concentration, managerial ownership, management stock option, and mutual funds' ownership on investment efficiency in non-financial firms listed on the IDX in 2015, 2016 and 2017. Secondary data used in this research is in the form of information that could be obtained from company's annual report

and financial statements which are could be obtained in Bloomberg, the official website of the Indonesia Stock Exchange (IDX) and the company's official website.

The results of this study prove that ownership concentration in a company does not significantly influence investment efficiency, and that makes the first research hypothesis is rejected. In contrast to the first hypothesis of this study, companies that have managerial ownership have proven that positively influenced the investment efficiency. The analysis's result proves that compensation in the form of management stock option granted by the company also positively and significantly influences the efficiency of the company's investment. This means that compensation provided in the form of stock management options will increase investment efficiency in a company. The final hypothesis of this study, mutual funds' ownership positively influences the investment efficiency, also prove that it is affecting the efficiency positively, so it could be interpreted that companies that have mutual funds in their shareholder structure will have a sturdier investment efficiency compared to those who do not have mutual funds' ownership.

There is five control variables used in this study to help finding the influence between two variables, independent and dependent. The five control variables used are controller or controlling party, operating cash flow, leverage, revenue growth, and firm size. The controller in this study prove to have no significant relationship on investment efficiency. On the other hand, this study shows that investment efficiency negatively influenced by operating cash flows. From the analysis's result, leverage also prove to have no significant influence on investment efficiency. While revenue growth, and firm size, prove to have a significant relationship on investment efficiency.

IMPLICATION AND LIMITATION

This research has the limitations faced during the process of analysis and interpretation of results. Limitations

encountered by researchers during this study include, among other things, that this study only uses non-financial firms listed on the Indonesia Stock Exchange (IDX) as research objects, so that they cannot yet represent all types of Indonesian companies listed on the IDX. In addition, only a few companies disclose the percentages of shares owned by ten largest shareholders in their annual reports in 2015-2017, so the number of samples in this study tends to be small.

Based on these limitations, the advice that could be given by researchers for future research is that the next study is expected to be able to expand on the object of research. So, the research will not only be limited to non-financial firms, but all companies listed on IDX, so that both financial and non-financial firms could be represented by the research. In addition, further research is expected to use other proxies to measure the ownership concentration, such as by calculating the percentage of share ownership of the five largest corporate shareholders, or other proxies that have previously been used to measure ownership concentration. Thus, there will be more samples that could be analyzed in order to test the truth of a hypothesis.

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