

The Effect of Earnings Management to Stock Liquidity in Manufacturing Companies Year 2009-2013

Rommy Harisma Akami Pratama

Supervisor: Prof. Dr. Drs. Sutrisno T. AK. M.Si.

International Accounting, Faculty of Economics and Business, Brawijaya University

Jl. Mayjen Haryono 165, Malang 65145, Indonesia

Telp. 0341-555000 (Hunting), 551396 Fax 0341-553834

E-mail: info.feb@ub.ac.id, Website: <http://www.feb.ub.ac.id>

The purpose of establishing the company is to maximize the value of the company or increasing the prosperity of stockholders. This objective can be achieved if the company is able to operate properly so that it will appreciate the company's stock price. It shows that there is relationship between company performances and company's outstanding shares in the capital market. One of the company's normative goals is to maximize the company's value through the increase in stock prices. This may encourage managers to perform creative accounting through earnings management. The purpose of this research is to determine the effect of earnings management and stock liquidity in manufacturing companies in Indonesia Stock Exchange year 2009-2013. Research method used in this research is panel data regression using software EViews 6. This research uses the dependent variable stock liquidity, while the independent variable is the earnings management. Results from this research indicate that there is a relationship between earnings management and stock liquidity but it did not show any significant effect. This supports the assumption that says that the practice of earnings management indicates poor company performance. Research on the upcoming future, needs to be studied more in depth about the stock liquidity by using other factors to maximize the results of research.

Keywords: Earnings Management, Stock Liquidity, Accounting Theory, Companies

1. Background of the Study

Purpose of establishing the company is to maximize the value of the company or increasing prosperity stockholder (Weston & Copeland, 1992). This objective can be achieved if the company is able to operate properly to achieve its goals and increase company's stock price. It shows the relationship between company's performance with the price of the company's outstanding shares in the capital market. One of the normative goals of firms is to maximize the value of the company through increase in stock prices. The goal of the firm is to maximize the wealth of the firm's present owners (Horne, 2001). Shareholder wealth is represented by the market price per share of the firm's common stock. The higher the stock price means the increase shareholder wealth.

In conducting its operations, the company needs funds from creditors and investors. The capital market is a medium that can bring together parties that will provide funds to companies in need of funding. The Company may issue shares or bonds to be traded on the stock market in order to obtain funds from the provider of funds. Shares are a value that is owned by the company in the form of financial instruments that serve as a financing company in the long run. The Place where common stock being traded in Indonesia is the stock market, known as the Indonesia Stock Exchange. Investors will be keen to make a purchase on stocks that have high level of liquidity.

Liquidity is the ability of an asset or instrument to deform into cash or cash equivalents. In other words, if an investor wants to sell the stock, then there are other investors who are ready to buy, and if the investor wants to buy shares, then there are investors who are willing to sell their shares. The level of liquidity of a stock is driven by transactions carried out on the stock. The more often a stock traded showed a high degree of mobility and easier shares traded and showed more liquid stocks. Stock liquidity in this research represented by the trading volume. Trading volume is the number of shares traded by investors in the capital market. The greater the volume of trade, the higher the level of liquidity of shares traded. Trading volume also can reflect the behavior of investors through the forces of demand and supply in the market share (Ang, 1997). Heightened demand and supply would be stock, reflect that the stock is increasingly in demand by many investors, and as a result, there will be fluctuations in the stock stock price resulting stock price to increase.

Earnings management are a phenomenon that is difficult to avoid because of this phenomenon is the impact of the use of the accrual basis in preparing the financial statements. In practice, managers indicated that such action is to maximize its utility and the market value of the company (Scott, 2006). Management could be classified doing earnings management practices if management did intervene in the process of preparation of financial statements for external parties so as to flatten, raise or even lower profits (Schipper, 1989). Earnings management is the accounting policies applied by managers to achieve specific objectives (Scott, 2009). Earnings management occurs when managers use judgment in financial reporting, and establish transactions to alter financial statements for the purpose of manipulating the amount of profit to some stakeholders about the underlying economic performance of the company, or to influence the outcome of the agreement which depend on accounting numbers reported (Healy & Wahlen 1999). A possible explanation for the relationship between earnings management and liquidity is the higher level of earnings management will increase asymmetry information and as a result there will appear conflict among investors regarding the results that may be obtained in the future, it is interpreted as an increase in volume of trading stock. In this research earnings management projected with Discretionary Accruals.

2. Review of Theory

Perspective agency relationship is the basis used to understand the earnings management. As an agent, manager morally responsible to optimize the benefit of the owner (*principal*) and in return will receive compensation in accordance with the contract. Thus there are two different interests in companies in which each party seeks to achieve or maintain a desired level of prosperity. Basic need for financial statement disclosure practices by management to shareholders described in agency theory. Agency relationship exists when one or more individuals who are called the principal working with individuals or other organizations called the agent. The principal will provide facilities and delegate policies decision-making to the agent (Jensen & Meckling, 1976). Agency theory states that earnings management practices are influenced by conflicts of interest between management (*agent*) and the owner (*principal*) that arises when each party seeks to achieve and maintain a level of prosperity that pleases. Agency theory using three assumptions of human nature (Eisenhardt, 1989):

1. Human generally prioritizing themselves (*self-interest*).
2. Humans has limited power regarding perception of the future (*bounded rationality*).
3. Human always avoid the risk (*risk averse*).

Earnings management has been widely practiced in many countries, including Indonesia. This can affect the information received by the users of financial statements. Earnings management is a phenomenon that is difficult to avoid because of this phenomenon is the impact of the use of the accrual basis in preparing the financial statements. In practice, managers indicated that such action is to maximize its utility and the market value of the company (Scott, 2006).

Management classified has done earnings management practices if management did intervene in the process of preparation of financial statements for external parties so as to flatten, raise or even lower profits (Schipper, 1989). Earnings management is the accounting policies applied by managers to achieve specific objectives (Scott, 2009). Earnings management occurs when managers use judgment in financial reporting, and establish transactions to alter financial statements for the purpose of manipulating the amount of profit to some stakeholders about the underlying economic performance of the company, or to influence the outcome of the agreement which depend on accounting numbers reported (Healy & Wahlen, 1999).

Motivation of the company in this case managers to perform earnings management are (Scott, 2009):

1. *Bonus scheme* motivated managers to work with the bonus program, they will try to set the reported earnings in order to maximize the bonus they will receive.
2. *Debt covenant* motivated managers in accordance to debt covenant hypothesis in positive accounting theory that the closer a company to breach debt agreement then the manager will tend to choose accounting methods that can “move” the profit from coming period to current period.
3. *Running* so as to reduce the possibility of the company suffered a breach of contract.
4. *Political motivation* is motivation from major corporations and strategic industry that tends to lower the profit to reduce its visibility, especially during periods of high prosperity. This action is performed to obtain some facility from government such as subsidies.
5. *Taxation motivation*, taxation is one of the main reasons why companies reduce reported earnings. By reducing reported earnings large companies can minimize the payable tax to the government.
6. Substitution of the *CEO*, the *CEO* who will be out of his assignment or retirement will be pursuing a strategy of maximizing profits to increase the bonus. Similarly, the *CEO* whose underperform will tend to maximize profits in order to prevent or cancel contract termination.
7. *Initial Public Offering (IPO)*, at the time the company *go public*, the financial information contained in the prospectus is an important source of information. This information can be used as a signal to potential investors about the value of the company.

There are three types of strategies in earnings management (Subramanyam & Wild, 2010):

1. *Increasing Income*, increase reported earnings in the current period to make the company look better. This method also allows an increase in earnings over the period.
2. *Big Bath*, conducted through the elimination (*Write-Off*) as much as possible in one period. The selected period is usually a period of poor performance (often in times of recession where other companies have also reported poor earnings) or in the event of a change of management, merger or restructuring.
3. *Income smoothing*, managers increase or decrease in reported earnings to reduce the fluctuation, by not reporting the share of profit in the profitable period and create profit reserves and then report the earnings during a bad period.

Accounts manipulation is done solely based on management's desire to influence investor's perception on the company's risks (Stolowy & Breton, 2004). These risks can be divided into two components:

1. Risks associated with variations in returns measured by earnings per share.
2. Risks associated with the financial structure of the company measured by debt equity ratio.

Therefore the purpose of earnings management itself is to improve both risks. The higher the level of earnings management showed, the higher risk of stock returns and consequently investors will raise the rate of cost of equity capital.

Stock is distinguished from several perspectives (Darmadji & Fakhrudin, 2001):

1. In terms of the ability of to claim. In terms of the ability to claim, divided into shares of common stock and preferred stock. Ordinary shareholders have limited liability company in which if a bankruptcy, the losses incurred amounted to shares held. Preferred shares have the combined characteristics of bonds and common stock, which shares can generate income like interest on the bonds, but may not be profitable, as desired by investors.
2. On how to transition. From the way switchover, the stock is divided into bearer stock and registered stock. Bearer stock are has no owner name written with the purpose to be easily transferable. Registered stock on the contrary, has owner name written clearly, that way transition must follow certain procedures.
3. Trade performance. Trade performance, the stock is divided into blue-chip stocks, income stocks, growth stocks, speculative stocks, and counter-cyclical stocks. Blue-chip stocks is a high value of common shares owned by the issuer with a high income and consistent dividend payments (*leader*). Income stocks has dividend payment ability above average in the previous year. Growth stocks consist of well-known and lesser-known. Well-known stock are shares from listed companies that have higher income (*leader*), while lesser-known stock are shares from listed companies that not the leader but have the characteristics of growth stocks. Speculative stocks are shares from listed companies that are not has consistent income every year but has high chances in the future to have high income despite uncertain. Counter-cyclical stocks are shares that are not affected by macroeconomic conditions or the general business situation.

The capital market is a place to bring together parties who require long-term funds with those who have the funds. In capital markets, it has an important role in the economic development of a country, because the capital markets can be used to mobilize funds from both domestic and international. The presences of capital market funding sources multiply choice for the company. One who plays a significant market in Indonesia in promoting economic growth is capital market. According to Law No. 8 of 1995 stated that the capital market is concerned with the activities of the public offering and trading of securities, public companies relating to securities issuance, and institutions and professions related to the effect. Currently in the Indonesian capital market has been progressing better, it is proved by the increase in number of the company listed in Indonesia Stock Exchange (IDX) from year to year.

The term liquidity used in this study is different in terms of liquidity that implies a company's ability to settle obligations to creditors using its current assets. Therefore liquidity is the ability to convert an investment into cash quickly intervening and with little or no loss of value (Gitman, Joehnk, & Smart, 2014). This means that liquidity as the ability to turn the value in the form of money as the most-current assets. More clear explanation is liquidity of shares with "*marketability is the ability to sell a significant volume of securities in a short period of time in the secondary market without significant price concession*" where liquidity is the ability

to sell great number of stock volumes for a short period of time in the capital markets without additional costs (Van Horne & Wachowicz, 2005).

Liquidity could also defined as the ability of an asset or instrument to deform into cash or cash equivalents. In other words, if an investor wants to sell their shares, then there are other investors who are ready to buy right away, and if the investor wants to buy shares, then there are investors who are willing to sell their shares right away. The level of liquidity of a stock is driven by transactions carried out on the stock. The more often a stock being traded shows high mobility and it is easier to trade and shows high liquidity. On stock market, liquidity indicates the level of mobility of a stock. Some of the elements that drive stock liquidity are:

1. Frequency of transactions, the higher the trading frequency, the higher the level of liquidity of the shares. According to IDX statistics, if the frequency of transactions per day greater than 97 times it is considered a liquid stock.
2. The stock price fluctuations, fluctuations in stock prices can be a stock price increase (appreciation) or the stock price decrease (depreciation). The appreciation led to increase in liquidity of shares, while the depreciation led to decrease in liquidity of shares.
3. The time required to execute the transaction, the shorter the time required to execute the transaction, the higher the level of liquidity. Jakarta Stock Exchange has implemented a computerized stock trading transactions with JATS (Jakarta Automated Trading System), so that the time required to execute a stock trade transactions become shorter. Therefore it can increase the liquidity of shares listed on the Indonesia Stock Exchange (Wira, 2012).

Trading volume is the number of shares traded by investors in the capital market. Higher trading volume of particular shares, higher liquidity level of shares being traded. Trading volume is necessary to fluctuate stock price (Sumiyana, 2005). Stock trading occurs when there are diversity of opinions about intrinsic value of shares or when the seller needs cash instantly. Trading volume fluctuation in the stock market showing trading activity and reflect investment decisions made by investors. Increase in trading volume indicating increase in transaction activity of buying and selling of particular stock in stock market (Indarti, 2011). Increase in volume of supply and demand of a stock caused greater effect on the stock price fluctuations on stock market, this influenced by the volume of shares traded (Bar-Yosef & Prencipe, 2012). Trading volume can also reflect investor's behavior through the forces of demand and supply in the stock market (Ang, 1997). Increase in supply and demand of stock, reflect that the particular attract high interest from many investors, and as a result, there will be fluctuations in the stock price that will produce an increase in price/return.

3. Previous Research Study

Research by Variyetmi Wira, SE, MM. This study was published in the Journal of Management and Entrepreneurship, Volume 3, Number 2, May 2012 with the title "Effect of Corporate Performance Against Liquidity Trading Stocks Using Turnover" (Case Study Company Listed in Indonesia Stock Exchange). This study aims to obtain empirical evidence that the variable performance of the company has a significant effect on stock liquidity using proxy trading turnover in the company in the stock market and corporate performance variables which significantly affect the level of liquidity of the stock using the proxy trading turnover in the capital market.

Research study stated that the performance ratios used in this model are able to explain the frequency of stock trading only for 26,2,1%, the rest is influenced by other factors not included in the model. Financial ratios that significantly influence the trading of shares owned by the company turnover is the ratio of CR and DER.

Research by Agnes Carolina. This study was written in 2014 with the title “Analysis of Influence Mechanism of Corporate Governance and Earnings Management of Stock Market Liquidity”. This research is used to fulfill the requirements of undergraduate students at the Faculty of Economics and Business, University of Diponegoro.

The results showed that independent directors and earnings management does not significantly affect the volume of stock trading, while public ownership significantly affect the volume of stock trading. Higher public ownership would increase the volume of stock trading.

Research by Moh. Nasih. This study was published by Journal of Economics and Business, Volume 3 Year XXIV, No. 1 April 2014 under the title “Quality of Earnings and Liquidity of Shares: Studies in Indonesian Stock Exchange.”

The results were quite varied. When the level of liquidity is measured by the effective spreads, earnings quality is measured by using income smoothing have a positive effect, while discretionary accrual showed no statistically significant effect. On the other hand when the stock liquidity is measured using illiquidity level, earnings quality as measured by discretionary accrual has a positive effect on the liquidity of the stock while smoothing earnings insignificant. These results provide opportunities for further research to develop a quality index of earnings are taken from several measurements of earnings opacity. Another findings from this research are the higher the variability of returns and stock prices, the liquidity of the stock tends to be lower. Other factors that affect the level of liquidity are the number of transactions, the depth of the transaction as well as market capitalization. Inconsistency results due to effective spreads used in this study are the market spread and not spread the dealer.

4. Hypothesis Development

Based on review of related literature above appears earnings management has become phenomena in many countries including Indonesia and is considered affecting financial information received by users. Management catogerazed has done earnings management practices if management did intervene in the process of preparation of financial statement for external parties whether to flatten, raise, and lower reported earnings (Schipper, 1989). Furthermore, it can be assumed that earnings management practices indicates poor performance. This condition could result to investor’s reluctant to trade shares with the company.

In the previous research stated that earnings management has no significant effect to stock trading volume (Carolina, 2014). Furthermore in another research found that earnings management that use discretionary accrual has no significant effect on stock liquidity (Nasih, 2014). Based on explanations above we concluded hypothesis:

H_0 : There is no significant effect between earnings management to stock liquidity.

H_1 : There is significant effect between earnings management to stock liquidity.

5. Research Method

This is a causality research where there are relationship between two or more variables. Relationships in this study are causal relationship, where exogenous variables (independent) variable that affects the endogenous variable (dependent) variable that is affected.

Populations in this research are manufacturing companies listed in Indonesia Stock Exchange (IDX) in the period 2009-2013 which was published in the Indonesia Stock Stock Exchange for period 2009-2013. Inter-industry accrual rate on these manufacturing companies are different depending on the characteristics of the industry. Therefore, the differences in the characteristics of the industry serves as the population in this research (Setiawati, 2002).

Sampling method using purposive sampling method, which determination of the sample based on the characteristics or the suitability of certain criteria. Criteria for the determination of the sample by using purposive sampling are as follows:

1. Manufacturing companies listed in Indonesia Stock Exchange in the period from 2009-2013.
2. Companies that publish consolidated financial statements ended December 31, during the observation period 2009-2013.
3. Companies that present financial statements in the currency of dollars in 2009-2013.
4. Companies that conduct trading shares in 2009-2013.

Data collection methods are an integral part of research design. Data used in this research are secondary data from the quantitative data obtained from the Indonesia Stock Exchange (www.idx.com). Data collection methods used in this of research is the method of documentation. Method of documentation is a method for searching data about variables through the records, transcripts, books, newspapers, magazines, agenda, and so on (Kriswanto, 2008).

The variables that have been identified should be classified according to the type and role of each variables in the research. This research used interval variable, variable resulted from the measurement. Measurements are assumed to be the same unit of measurement, where the measurement is expressed in scores. This research involves two variables, dependent and independent.

Independent variable is variable that affect the dependent variable. The independent variable in this study is earnings management. Earnings management proxies with discretionary accruals. Here are the stages of discretionary accruals calculation Jones models (Carolina, 2014):

1. Calculate the total accrual using cash flow approach.

$$TAC_{it} = NI_{it} - CFO_{it}$$

Where:

TAC_{it} = Total accruals for firm i in year t

NI_{it} = Net profit after tax of firm i in year t

CFO_{it} = Cash flow from operating activities of firm i in year t

2. Determining the regression coefficient of total accruals.

$$TAC_{it}/Asset_{it-1} = \beta_1 (1/Asset_{it-1}) + \beta_2 (\Delta Rev_{it}/Asset_{it-1}) + \beta_3 (PPE_{it}/Asset_{it-1}) + \epsilon_{it}$$

Where:

Assetit-1 = Total assets of firm i in year t-1

ΔRevit = Changes in firm's earnings i between year t and year t-1

PPEit = Acquisition value of fixed assets of firm i in year t

ϵ_{it} = Error item

- Determining *nondiscretionary accruals*. Regression is done in equation (3) yields the coefficients β_1 , β_2 , and β_3 . Third regression coefficients generated by this is then used to predict *nondiscretionary accruals*.

$$\text{NDACit}/\text{Assetit-1} = \beta_1 (1/\text{Assetit-1}) + \beta_2 [(\Delta\text{Revit}-\Delta\text{Recit})/\text{Assetit-1}] + \beta_3 (\text{PPEit}/\text{Assetit-1}) + \epsilon_{it}$$

Where:

NDACit = *Nondiscretionary accruals* firm i in year t

ΔRecit = Changes in receivables on firm i between year t and year t-1

- Determining *discretionary accruals*.

$$\text{DACit} = \text{TACit}/\text{Assetit-1} - \text{NDACit}$$

Where:

DACit = *Discretionary accruals* for firm i in year t

Dependent variable is a variable that is affected by independent variables. The dependent variable of this research is stock liquidity. Stock liquidity presented by the trade volume. Trading volumes may also reflect investor's behavior through forces of demand and supply in the stock market (Ang, 1997). Higher demand and supply of a particular stock indicating that particular stock attract many investor's interest, as a result there will be stock price fluctuations in the stock market that would increase stock price/return.

Trading volume measured using stock trading volume activity indicator (Foster, 1986). Trading volume activity is an indicator that can be used to determine stock market reaction to the information through trading volume activity parameter in the stock market. The formula is as follows:

$$\text{TVA}_{i,t} = \frac{\text{Company stocks } i \text{ traded in time } t}{\text{Company stocks } i \text{ issued in time } t}$$

The analysis technique used to answer the whole objective of this research is to use panel data analysis. Panel data analysis is a statistical method, widely used in econometrics, which deals two dimensional panel data. Panel data analysis is a combination of time series data and cross section data (Widiarjono, 2007).

6. Research Findings and Discussions

6.1. Research Findings

Data in this research is used to determine the impact of earnings management to stock liquidity. Data used in form of an annual panel data with 5 years of observations from period 2009-2013 on listed manufacturing companies in Indonesia Stock Exchange (IDX). Here are profiles of the data used in this study.

| Variabel | Mean | Median | Std. Dev. | Max | Min |
|----------------------------|---------------|--------------|--------------|-------------|----------------|
| Stock Liquidity | 0.746098 | 0.09305 | 5.233640 | 74.53798 | 0.0000844 |
| Earnings Management | -323035353310 | -63066907941 | 967500938853 | 18728707925 | -7558673950176 |

Based on data in table above, obtained stock liquidity data showing 0.746098 average with 0.09305 median and 0.0000844 minimum value with 74.53798 maximum value. Here is a chart of stock liquidity during period of observation.

Based on data in Table 4.1 above, obtained earnings management data showing average -323035353310 with -63066907941 median and -7558673950176 minimum value and 18728707925 maximum value. Here is a chart of earnings management during the period of observation.

1. Model Data Panel Estimation

a. Common Effect

The technique used to estimate panel data is to combine *time series* data and *cross section* data using OLS (*common effect estimation*). This approach ignoring time and individual dimensions. It is assumed individual behavior data equal to time period. Here are the results of common effect model estimation:

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 1.477309 | 1.109212 | 1.331854 | 0.1844 |
| PER_EARNINGS | 3.35E-11 | 4.80E-11 | 0.698326 | 0.4858 |
| R-squared | 0.002397 | Mean dependent var | | 0.746098 |
| Adjusted R-squared | -0.002518 | S.D. dependent var | | 5.233640 |
| S.E. of regression | 5.240225 | Akaike info criterion | | 6.160314 |
| Sum squared resid | 5574.371 | Schwarz criterion | | 6.192734 |
| Log likelihood | -629.4322 | Hannan-Quinn criter. | | 6.173427 |
| F-statistic | 0.487659 | Durbin-Watson stat | | 2.469891 |
| Prob(F-statistic) | 0.485773 | | | |

Based on the table above, it shows the variables in the common effect model that earnings management has no effect on stock liquidity. It is shown in the variable probability of earnings management $0.4858 > 0.05$.

b. Fixed Effect

This model can show constant differences between objects, although used with same regressors coefficient. Assumption in this method that there is a difference between objects but intercept between time is similar. This method also assumed that it's *slop* between objects and between time are same. Furthermore added common generalization which is by inserting a *dummy variable* to allow the parameter difference between *cross section* and time series occur. Here are the results of fixed effect model estimation:

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 1.477309 | 1.108475 | 1.332740 | 0.1845 |
| PER_EARNINGS | 3.35E-11 | 4.80E-11 | 0.698790 | 0.4857 |
| R-squared | 0.200033 | Mean dependent var | | 0.746098 |
| Adjusted R-squared | -0.001186 | S.D. dependent var | | 5.233640 |
| S.E. of regression | 5.236742 | Akaike info criterion | | 6.329772 |
| Sum squared resid | 4470.025 | Schwarz criterion | | 7.010584 |
| Log likelihood | -606.8017 | Hannan-Quinn criter. | | 6.605144 |
| F-statistic | 0.994108 | Durbin-Watson stat | | 3.080092 |
| Prob(F-statistic) | 0.489820 | | | |

Based on the table above, it shows the variables in fixed effect model that earnings management have no effect on stock liquidity. It is shown in the variable probability of earnings management $0.4857 > 0.05$.

c. Random Effect

Panel data with *fixed effects* through *dummy* variables technique showed uncertainty model used. To resolve this problem, it can be use residual variable known as random effects method. In this model, will be selected panel data estimation where residual may have connections between cross section and time series. Intercept difference between objects and time that may occur will be included into error on OLS model to achieve efficiency. Parameters that are different between objects and time will also be included into *error*. Because of that random effect model is often called *error component model*. Here are the results of random effect model estimation:

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|-----------------------|-------------|--------------------|-------------|----------|
| C | 1.477309 | 1.108882 | 1.332251 | 0.1843 |
| PER_EARNINGS | 3.35E-11 | 4.80E-11 | 0.698790 | 0.4855 |
| R-squared | 0.002400 | Mean dependent var | | 0.743591 |
| Adjusted R-squared | -0.002515 | S.D. dependent var | | 5.230170 |
| S.E. of regression | 5.236742 | Sum squared resid | | 5566.963 |
| F-statistic | 0.488308 | Durbin-Watson stat | | 2.473177 |
| Prob(F-statistic) | 0.485483 | | | |
| Unweighted Statistics | | | | |
| R-squared | 0.002397 | Mean dependent var | | 0.746098 |
| Sum squared resid | 5574.371 | Durbin-Watson stat | | 2.469891 |

Based on the table above, it shows the variables in the *random effect* model that earnings management have no effect on stock liquidity. It is shown in the variable probability of earnings management $0.4855 > 0.05$.

2. Goodness of Fit Test

a. Chow Test and LM Test

| Effects Test | Statistic | d.f. | Prob. |
|--------------------------|-----------|----------|--------|
| Cross-section F | 1.006753 | (40,163) | 0.4692 |
| Cross-section Chi-square | 45.261029 | 40 | 0.2617 |

Based on the table 4.5 above, it shows that in the Chow test it is used random effect model. It is shown from the probability value of cross-section F $0.4692 > 0.05$, whereas the in the LM test it is used fixed effect model. It is shown from the probability value of cross-section *Chi-square* $0.2617 > 0.05$.

b. Hausman Test

| Test Summary | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob. |
|----------------------|-------------------|--------------|--------|
| Cross-section random | 0.000000 | 1 | 1.0000 |

Based on the table 4.6 above, it shows that in the Hausman test it is used *random effect* model. It is shown from the probability value of *cross-section random* $1.000 > 0.05$.

From the Chow Test, LM Test, and Hausman Test results it is known that they are using random effect model. Here is the complete estimation of random effects model.

3. Data Panel Regression Interpretation

| Variable | Equation |
|-----------------|--|
| Stock Liquidity | $1.477309 + 0.0000000000335 * \text{Per Earnings}$ |

On the equation above, it demonstrated the effect of earnings management variable to stock liquidity variable. Following are further explanation of regression coefficients above:

- Constants (α_0) = 1.477309, it means if there is no earnings management variable or equal to zero then the value of the stock liquidity of manufacturing companies have positive value 1.477309.
- Regression Coefficients (α_1) = 0.0000000000335, it means if earnings management value increases by 1 then it will increase the stock liquidity value by 0.0000000000335 assuming other variables remain the same.

4. Hypothesis Test

a. Individual Coefficient Test (t Test)

Hypothesis used in this study are:

$H_0: \beta_i = 0$ There is no influence earnings management to stock liquidity.

$H_1: \beta_i \neq 0$ There is influence earnings management to stock liquidity.

Basis for decision making in the partial test (t test):

- 1) If the numbers of significance $> 0,05$ then H_0 accepted.
- 2) If the numbers of significance $< 0,05$ then H_0 rejected and H_1 accepted.

The value of t-statistic 0.698790 with sig. t 0.4855 ($p > 0.05$), meaning earnings management have positive effect but not significant on stock liquidity. In other words, if stock management occurs, then liquidity management value will increase, but not significantly.

b. Coefficient of Determination (R^2)

Coefficient of determination value 0.002400 or 0.24%, it means that earnings management variable contribution in affecting stock liquidity is 0.24%. While the remaining 99.76% influenced by other variables beyond the research model.

6.2. Discussions

Research findings on the effect of earnings management to stock liquidity on listed manufacturing companies in Indonesia Stock Exchange in the period 2009-2013 shows that there is positive effect between earnings management on stock liquidity but not significant. This findings support the assumption that earnings management does indicate poor performance of the company. This condition resulted in the investor's reluctance to trade shares with the particular company. Earnings management is done by abusing the accrual components in the financial statements, since these accrual components can be manipulated through accounting method according to financial report's authors (Sulistyanto, 2008).

Earnings management is one factors that can reduce financial statements credibility, because earnings management causing information bias in the financial statements and could disrupt financial statement users who trusts engineered earning figures as real earning figures, resulting earnings management to reduce integrity of financial statements of particular company (Rachmawati, Suparno, & Qomariyah, 2007).

Related to stock liquidity, states that there are four dimensions of liquidity (Harris, 2003): (1) immediacy (refresh), which measures how quickly investors transaction in an asset; (2) width (wide bid-offer spread), where liquidity measured from the cost of transaction of an asset; (3) depth, where liquidity measured from the number of buy and sell orders in the market; (4) resiliency (elasticity), where liquidity measured by how quickly an asset can be returned to the previous level if there is an imbalance of buying and selling in large numbers.

Trading volume is the number of shares traded by investors in the capital market. Higher trading volume of particular shares, higher liquidity level of shares being traded. Trading volume is necessary to fluctuate stock price (Sumiyana, 2002). Stock trading occurs when there are diversity of opinions about intrinsic value of shares or when the seller needs cash instantly Trading volume fluctuation in the stock market showing trading activity and reflect investment decisions made by investors. One of the conditions that bring stock liquidity required is command execution time for particular stock. The volume of stock trading is increasing indicating increased activity of investors buying and selling at an exchange. Increase in trading volume indicating increase in transaction activity of buying and selling of particular stock in stock market (Indarti, 2011).

These results are supported by previous research who found that earnings management does not significantly affect the stock trading (Carolina, 2014). Furthermore in another research found that management earnings that use discretionary accrual do not have any significant effect on stock liquidity (Nasih, 2014).

7. Conclusion

Based on research conducted on listed manufacturing companies in Indonesia Stock Exchange (IDX) we concluded that based on our statistical test results that were conducted to determine whether there is any influence between earnings management and stock liquidity in the listed manufacturing companies it can be concluded that there is no significant effect between these variables.

8. Limitations

The following are limitations contained in this research:

1. Companies that are used as research object limited by companies listed in Indonesia Stock Exchange (IDX) in 2009-2013. Therefore to expand the result itself can be conducted by increasing the year observation data.
2. A company that does not display the financial statements as a whole and not using Rupiah currency resulting the number of decreasing data from listed companies that are used in this research.
3. This study is limited by the use of the measurement of earnings that approach Discretionary Accruals while stock liquidity is measured using trading volume approach. In order for this research to get optimal it can compare different approaches in projecting income measurement and liquidity of shares.

9. Recommendations

Based on the research conclusion, suggestions that can be given in this research are:

1. In order to improve the liquidity of the company's shares is to reform the company's performance to be better.
2. For following research, to examine more in depth about the liquidity of the stock by using other factors associated with increased stock liquidity.

10. References

- Weston, J. F., & Copeland, T. E. (1995). *Manajemen Keuangan*. Jakarta: Binarupa Aksara.
- Van Horne, J. C., & Wachowicz, J. M., Jr. (2005). *Prinsip – Prinsip Manajemen*. Jakarta: Salemba Empat.
- Ang, R. (1997). *Buku Pintar Pasar Modal Indonesia*. Jakarta: Mediasoft Indonesia.
- Scott, W. R. (2006). *Financial Accounting Theory*. New Jersey: Prentice-Hall.
- Schipper, K. (1989). Commentary on Earnings Management, *Accounting Horizons*, 3(4), 91-102.
- Scott, W. R. (2009). *Financial Accounting Theory*. Toronto: Prentice Hall.

- Healy, P. M., & Wahlen, J. M. (1999). A Review of the Earnings Management Literature and Its Implications for Standard Setting. *Accounting Horizons*, 13(4), 365-383.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305-360.
- Eisenhardt, K. M. (1989). Agency Theory : An Assesment and Review, *The Academy of Management Review*. 14(1), 57-74.
- Subramanyam, K. R., & Wild, J. (2010). *Financial Statement Analysis*. Boston: McGraw-Hill Irwin.
- Stolowy, H., & Breton, G. (2004). Accounts Manipulation: A Literature Review and Proposed Conceptual Network. *Review of Accounting and Finance*, 3(1), 5-92.
- Darmadji, T., & Fakhruddin, H. M. (2008). *Pasar Modal Di Indonesia: Pendekatan Tanya Jawab*. Jakarta: Salemba Empat.
- Gitman, L. J., Joehnk, M. D., & Smart, S. B. (2014). *Fundamental of Investing*. New Jersey: Prentice Hall.
- Wira, V. (2012). Pengaruh Kinerja Perusahaan Terhadap Likuiditas Saham Menggunakan Trading Turnover (Studi Kasus Perusahaan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Manajemen dan Kewirausahaan*, 3(2), 97-120.
- Sugiri, S., & Sumiyana (2005). *Akuntansi Keuangan Menengah*. Yogyakarta: UPP AMP YKPN.
- Indarti, I., & Purba, D. M. B. R. (2011). Analisis Perbandingan Saham dan Volume Perdagangan Saham Sebelum dan Sesudah Stock Split. *Aset*, 13(1), 57-63.
- Bar-Yosef, S., & Prencipe, A. (2013). The Impact of Corporate Governance and Earnings Management on Stock Market Liquidity in a Highly Concentrated Ownership Capital Market. *Journal of Accounting, Auditing & Finance*, 28, 292-316.
- Carolina, A. (2014). *Analisis Pengaruh Mekanisme Tata Kelola Perusahaan Dan Manajemen Laba Terhadap Likuiditas Pasar Saham* (Minor Thesis of Diponegoro University, Semarang). Retrived from http://eprints.undip.ac.id/43057/1/13_CAROLINA.pdf
- Nasih, M. (2014). Kualitas Laba Dan Likuiditas Saham: Studi Di Bursa Efek Indonesia. *Jurnal Ekonomi dan Bisnis*, 3(1).
- Kriswanto, J. (2008). *Metode Pengumpulan Data*. Retrived From the Joni Kriswanto website: <http://jonikriswanto.blogspot.com>
- Foster, G. (1986). *Financial Statement Analysis Second Edition*, New Jersey: Prentice Hall International.
- Sulistiyanto S., & Mdiastuti, P. P. (2002). *Seasoned Equity Offerings: Benarkah Underperformance Pasca Penawaran*. This paper presented at Simposium Surviving Strategies to Cope With The Future, Universitas Pendidikan Atmajaya Yogyakarta, Yogyakarta, 13-14 of September.
- Rahmawati, Suparno, Y., and Qomariyah, N. (2007). Pengaruh Asimetri Informasi Terhadap Praktik Manajemen Laba pada Perusahaan Publik yang Terdaftar di Bursa Efek Jakarta. *Jurnal Riset Akuntansi Indonesia*, 10(1), 68-89.
- Harris, L. (2003). *Trading & Exchanges: Market Microstructure for Practitioners*. New York: Oxford University Press.