

## **The Determinant on Accrual Management and Earning Volatility: A Study on Hedged and Unhedged Company in Indonesia**

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**Abstract:** The objective of this research is to evaluate the different between corporate governance toward accrual management and earning volatility between company hedged and unhedged in Indonesian Stock Exchange. This research used secondary data of annual report and accrual management in 2010-2014. The data collection used documentation method. The hypotheses test used Structural Evaluation Method (SEM) with WarpsPLS 4.0 program. The test result indicates ownership management model and independent audit committee as a monitoring and supporting factor of the companies to lower volatility earning in the hedged company and management ownership in companies unhedgeds company. There is a difference of financial value as a trading on hegder and unhedgeds company and speculation to lower volatility earnings.

**Key words:** Hedged company, unhedged, corporate governance, accrual management, earnings volatility

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### **INTRODUCTION**

The beginning of the 20th century occurred the development of the company and set up a group of large companies. Important elements for the evolution of this is many companies turned from financing obtained from loans at banks to the financing obtained from the investors and the capital markets, to address the volatility of the company's earnings to the detriment of the community. The case of PT. Kimia Farma Tbk in 2002 indicated a practice of accrual management by increasing earning to Rp. 32.7 billions. PT. Indofarma in 2004 did an accrual management practice by presenting overstated net earning of Rp. 28.870 billions as an effect of good supply evaluation in a higher process than usual so that the main selling process in that year was understated in Indonesia. Dechow *et al.* (1995) stated that accrual earning is considered as a better measurement compared with cash flow from operational activity since accrual considers time matter, different with the one in cash flow of operational activity. Pollet and Wilson (2010) stated that a high earning volatility is revealed with the correlation between stocks. Hunt showed that the correlation of financial asset is factor that contributes on fluctuation/volatility of earning. Novita *et al.* (2009) stated that management chooses to keep the stable earning value compared with volatility earnings so that the amangement will raise the eraning reported if the real earning amount is lower than the earnings in previous year. Black *et al.* (2003) stated that a company that is managed well and profitable as well

as investors can determine earnings or higher dividend to the company with corporate governance. Aluchna (2009) showed a proof that investor determines earnings or dividend flow to the company with corporate governance in mitigating opportunistic management behavior. Scott (2007) found that company's objectives to hold an earning management practice are: first, company management tries to increase earning transparency level in communicating company internal information in term of efficient eraning management. Second is company management tries to maximize the profit for itself in this case the earning management is opportunistic.

Guay and Kothari (2013) found that earning volatility and cash flow is high because of the imperfect informaton in the capital market. Derivative transaction is one of financial instruments used to decrease fluctuation/earning volatility and accrual management. The objective of accrual management increases the owner welfare in long term (Fischer and Rosenzweig, 1995; Scott, 2007). Barth *et al.* (2008) gave proof that capital market appreciates the companies that have earning raise and gives additional incentive on hedging policy to avoid earning volatility. Hedging is a rational and economical risk management strategy. Campbell and Kracaw (1991) studied insurance company through hedging that showed a certain incentive contract, the stakeholders would be harmed by the behavior of the manager to do hedging because managers will deviate from the acquisition of insurance. Amir found that the management, Chief Executive Officer (CEO) and Chief Financial Officer in a

registered company in Sweden were sentenced to be committed in crime. This study is consistent between management and CEO role that influences the earning volatility negatively.

Barnhart and Rosenstein (1998) the mechanism of corporate governance is divided into two groups. First, internal mechanisms such as the composition of the Board of Directors/Commissioners, managerial ownership, quality audit and executive compensation positively influence the fluctuation/profit volatility. Second, external mechanisms such as institutional ownership, independent audit committees, control by the market and the level of debt the financial negatively influence the fluctuation/earnings volatility. Barclay found a positive and significant influence of a high institutional ownership level to company. Based on the research problems formulated, the research issue is whether the model of empirical research can overcome the gap research between corporate governance and corporate earnings on volatility hedged and non hedged? The purpose of this research is generally as a mean of monitoring over the behavior of the accrual management address the volatility of the company's earnings on a non hedged and hedged company. Contributions/originality of the research is there a difference in the role of corporate governance against the volatility of profits on hedged and non hedged companies. On hedged company, the use of hedging impacts on earning volatility as trading because the underlying foreign currency transaction hedged and unhedged company as speculation in reducing accrual management behavior to lower earning volatility.

**Literature review:** Three PAT hypotheses that can be used as the foundation of management behavior formulated by (Watts and Zimmerman, 1990) on management motivation does accrual is as: Bonus plan hypothesis is a management that is given a promise to get a bonus for the company performance especially company profit that should be a part in the future. The debt covenant hypothesis. In doing a debt agreement, company should fulfil some condition applied by the debtor. The political cost hypotheses, this hypothesis explains the political result from accountancy policy selection done by the management. Agency theory implies the information asymmetry between managers as the agent and the stakeholders. Beaver and Venkatachalam (2003) in choosing accountancy method with the valid standard/rule. Jensen and Meckling (1976) described the agency relationship where there is a contract that becomes the foundation of one party (principal/owner) to employ other party (agent) to manage the company in the name of the company. Opportunistic

matter assumption. Williamson (1979) stated that an opportunist (Williamson, 1979) stated that opportunism is perceived as self-interest seeking with guile. therefore the assumption of model of man in agency theory is an opportunist) predicted will behave to prioritize himself, hide the truth and tend to cheat. Therefore to overcome the problem, behavior monitoring is needed to notice the behavior of the agent and giving incentive so that the agent will behave 'well'. Economics assumption, it is found a phenomenon agent dislikes risk, many managers that are risk averse (Risk averse<sup>2</sup> is an expansion from an investor who faces two investments with a similar return with different risk (Lambert, 2001). The study on agency theory found the honest, neutral or risk averse agent will be considered an exception (Jensen, 1986) with hedging policy can decrease company earning volatility.

Ghozali (2014) stated that a bank with a maximum efficiency performance is assumed to be able to perform a optimum banking intermediation function and able to increase company value. Farrell (1957) stated that company efficiency has two components, technical efficiency and allocated efficiency. Technical efficiency expresses the ability of company in optimize the use of available input with the structure on price and production technology. Allocated efficiency is defined as capacity from the company to select input and output combination that minimize the expenses or maximize the profit. Kumbhakar and Lovell (2003) said that technical efficiency is a component of a total economics efficiency. Efficiency theory stated that a higher efficiency level from the competitor is potential to maximize the profit by keeping the price level and company size maximize the earning by decreasing price with expanding the company size McShane *et al.* (2011).

Williamson (1979) stated that opportunism is perceived as self-interest seeking with guile. Therefore, the assumption of model of man in agency theory is an opportunist. Risk averse is an expansion from an investor who faces two investments with a similar return with different risk (Lambert, 2001). Accrual management is stated by Stubben (2010) as "Accrual managements occurs when managers use judgement in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economics performance of the economy or to influence contractual outcomes that depend on reported accounting numbers (Nugroho and Eko, 2012) namely: accrual management; Mukhtaruddin *et al.* (2014) made through the management of accrual is not the same as the manipulation of earnings. Accrual management is done by leveraging the inherent weakness of the accrual accounting policies and still be within the acceptable

accounting general principles. Volatility earning is a standard deviation of ratio earning company operation before interest and tax (EBIT) compared with total asset. And according to Ramdhani (2012) is a level of volatility (rapid company) from the earning which according to Ramdhani (2012), volatility earnings is related with the expectation of bankruptcy expense that influences the agency cost of debt. Moreover, Huang (2013) or external ones tends to consider this condition because basically the response of external side toward the unexpected increase earnings will be similar to the response of the external side toward the similar unexpected decreasing earning. According to Gamayuni (2015) is a proxy of business risk. Business risk is a risk that is faced by the company.

### Hypothesis development

#### The difference of corporate governance to earning volatility in hedged and unhedged company

##### The management ownership to earning volatility:

Jensen and Meckling (1976) found that managerial ownership manages to be a mechanism to reduce agency problems of managers by aligning the interests of managers and stakeholders. In the low stock holdings, then the incentive to the possibility of opportunistic behavior of managers will increase and mitigate the earning risk/volatility Shleifer and Vishny (1989). The research result of Lee (2008) and Nuringsih (2010) found a negative relation between managerial stock ownership with volatility. The negative relation and not significant between managerial ownership and earning volatility (Wahidahwati, 2002). Stock ownership management as the company's internal monitoring tool of hedged and unhedged company which can reduce earnings volatility. The hypothesis that is tested as follows:

- $H_{1a}$ : There is a difference between management ownership influence to earning volatility between hedged and non hedged companies

**Institutional ownership toward earning volatility:** There is a different feedback from the institutional ownership that can reduce company management profits (Persakis and Iatridis, 2015). Kim *et al.* (2006) compared with a company that do not use derivative financial or corporation (unhedgeds). Derivatives financial linearly generally efficient significantly reduce high cost economies and mitigate (Frestad and Beisland, 2014). The differences in corporate governance is protected by value and unhedged can reduce earning volatility. Earning volatility has a negative and significant relation to institutional ownership. There is a negative and significant relation between institutional ownership to

earning volatility. Periodical financial report issued by the management as the information source for institutional investor in performing monitoring activity. The high institutional ownership will influence company market value and reduce company earning volatility. The higher stock ownership level of institution the more effective control mechanism toward the management performance (Shleifer and Vishny, 1989). The number of company institutional stock ownership can decrease earning volatility. Hypothesis tested is as follows:

- $H_{1b}$ : There is a difference between institutional ownership influence to earning volatility between hedged and non hedged companies

#### The independence audit committee toward earning volatility:

Company decision to use accrual management and hedging depend on corporate governance and company financial character (Barton, 2001). Xie *et al.* (2003) stated that the existence of effective Corporate Governance like the presence of audit committee will decrease earning volatility in unhedged company. One of the ways to decrease the supervision expense of the stakeholder is by involving the third party or independent audit committee in supervision (Jensen, 1986). The above step of the management can be explained through the prospect theory concept that stated someone tends to be profitable risk averse and becomes risk seeking in a condition that is harmful. Company that has independent audit committee negatively influences earning volatility and has a higher debt letter than the company that does not have audit committee. The effective function from Independence Audit Committee that is expert in finance, accountancy and review audit report as the external controlling tool that can decrease earning volatility. Hypothesis tested is as follow:

- $H_{1c}$ : There is a difference in the influence of Independence Audit Committee and Earning Volatility between hedged and unhedged companies

**Audit quality toward earning volatility:** Abumustafa and Abduljader (2011) found that risk based audit is trusted more than the traditional version because the focus of earning volatility is hoped to be the cause of the finance volatility that can be overcome than just viewing the financial report. The report to management on the earning volatility of the company is one of the ways that can increase audit (Fraser and Simkins, 2010). The descent quality of audit can be seen from the less of company accrual transaction and qualified audit report as the

internal control tool that can reduce earning volatility in hedged and unhedged companies. The hypothesis tested as as follow:

- $H_{1d}$ : There is a different between audit quality influence to earning volatility between hedged and unhedged companies

**MATERIALS AND METHODS**

**Research methodology:** The statistics model proposed in this study is formulated in the line equations as follow:

$$\eta_1 = \beta_0 + \beta_1\xi_1 + \beta_2\xi_2 + \beta_3\xi_3 + \beta_4\xi_4 + \xi_5 \quad (1)$$

$$\eta_1 = \beta_0 + \beta_1\xi_1 + \beta_2\xi_2 + \beta_3\xi_3 + \beta_4\xi_4 + M\xi_5 + \xi_2 \quad (2)$$

The sampling technique uses purposive sampling with the steps as follow: Identify finance and non finance companies that are go public in Indonesia Stock Exchange in 2010-2014. Sample companies have stock ownership by the management, institutional ownership, independent audit committee, audit quality and finance hedging activity. The audited financial report can be accessed in Indoensia Stock Exchange and the number of hedged company samples are 45 and unhedged companies are 765 for the year of 2010-2014. This research used analysis tool of Struktur Equation Modeling SEM-WarpPLS with the formative method because the data observed. Program WarpPLS 4.0. is Variance or component based Struktur untuk menguji hipotesis. Financial risk measurement uses company earning volatility proxy (Nuringsih, 2010) with the equation as follow:

$$\sigma_i = \sqrt{(\sum X - X_{average}) / (n-1)}$$

Where:

- $\sum i$  = Deviation standard
- $\sum X$  = Operation profit amount
- $X_{rata2}$  = Operation profit average
- $n-1$  = Amount of operation profit in 5 year subtracted by one

Accrual management variable is measured by accrual modified by Dechow *et al.* (1995) and Davidson *et al.* (2004). However, discretionary accrual can be decreased to several equation as follow:

$$TACC_{i,t} = \text{Net income} - \text{Cash flow from operation} \quad (3)$$

$$(TA = NI_{jt} - CFO_{pit})$$

Where:

- TA = Total Accrual in company j by the end of year t
- NI = Net Income before extra ordinary items of company j in t period
- CFOp = Cash Flow from Operation

Dechow *et al.* (1995) presents modified Dechow as proxy accrual disgressioner as follow: Total accruals estimated as Eq. 4:

$$TACC_{i,t} = \beta_1 TA_{i,t-1} + \beta_2 TA_{i,t} [(\Delta REV_{i,t} - \Delta REC_{i,t})] + \beta_3 TA_{i,t-1} [PPE_{i,t}] + TA_{i,t-1} \quad (4)$$

Where:

- $TACC_{i,t}$  = Total accrual in company i by the end of year t
- $Ta_{i,t-1}$  = Amount of activa in company j by the end of year i-1
- a = Constanta
- $\beta_1, \beta_2, \beta_3$  = Parameter of research variable/regression coefficient
- $\Delta REV_{i,t}$  = Income change of company i from period y-1-t
- $\Delta REC_{i,t}$  = Credit change of company i from period i, t-1-t
- $\Delta TA_{i,t}$  = Amount of fixed activa company i in t
- $PPE_{i,t}$  = Amount of fixed activa company i by the end t period
- $\epsilon_{i,t}$  = Error company i in t period

**Testing of the difference of corporate governance influence between hedged and unhedged companies with multi group:** To test if there is a difference in effect of financial hedging activity and the role of corporate governance to earning volatility of hedged and unhedged companies, so it can be calculated that the value t-statistic as follow:

$$t = \frac{\text{Path sample 1} - \text{Path sample 2}}{SE^2 \text{ sample 1} + SE^2 \text{ sample 2}}$$

Where:

- Path sample 1 = Coefficient line for group 1 hedge company
- Path sample 2 = Coefficient line for group 2 unhedge company
- $SE^2$  sample 1 = Coefficient error standard value of group 1 (Hedge)
- $SE^2$  samaple 2 = Coefficient error standard value of group 2 (Unhedge)

**RESULTS AND DISCUSSION**

**Statistical results**

**The difference of corporate governance influence to earning volatility:** Testing rest of path coefficients and

p-value to see the number of coefficient and significant level on multigroup different test on the relation between corporate governance and earning volatility and accrual management is explained in the difference of hedged and unhedged company testing in Fig. 1.

Figure 1 shows the difference of hedged company influence inter variables where the management ownership, institutional ownership, independent audit committee and audit quality are the independent variables and earning volatility is dependent variable that is mediated by accrual management. The test result of accrual management influence to earning volatility can be seen that line coefficient is 0.18,  $p = 0.04$  ( $p > 0.05$ ) and error standard of line coefficient is 0.096. Based on test result the influence of management ownership to earning volatility can be seen for about -0.51,  $p = 0.01$  ( $p < 0.05$ ) and error standard of line coefficient about 0.096. And the testing of institution ownership influence to earning volatility the line coefficient is about 0.08,  $p = 0.21$  ( $p < 0.10$ ) and error standard of line coefficient is 0.096. Independent audit committee to earning volatility can be seen that line coefficient is -0.41, p-alue is about 0.01 ( $p < 0.05$ ) and line coefficient error standard is 0.096. while the test of audit quality influence to earning volatility can be seen that line coefficient is 0.06, p-value 0.28 ( $p > 0.05$ ) and line coefficient error standard is about 0.096.

Accrual management does not influence significantly and positivel to earning volatility and management ownership influences significantly and negaatively, institutional ownership does not influence significantly and positively, independent audit committee influences significantly and negatively, audit quality does not influence significantly and positively to earning volatility. While the variable of management ownership, institutionla and audit quality influence significantly and negatively to accrual management and independent audit committee variable dos not influence significantly and positively to accrual management.

**Test of unhedged company differences:** To answer research hypothesis, there must be a model that describes causality relation between exogen variable that are management ownership, institutional ownership, independent audit committee and quality while the endogen variable is earning volatility. Therefore, after holding a run test, it is gained a model of CG relation to earning volatility of the unhedged company as follow: in Fig. 2 variable that shows the relation of causality relation inter variable where CG is an independent variable and earning volatility is dependent variable. To answer the fourth research ( $H_4$ ), then it must be made a result table path coefficient and p-value. Unhedge company that

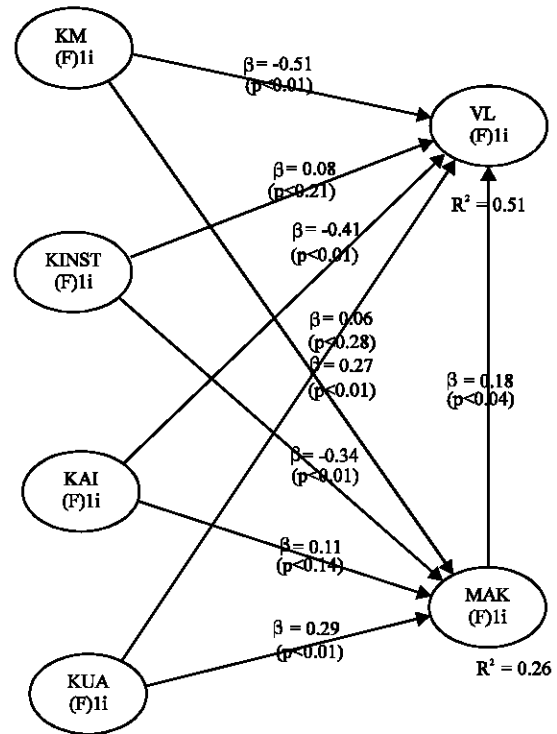


Fig. 1: Model of relation CG to VL and accrual management of hedged company

describes the causality relation inter exogen variable that is CG and endogen variable that is earning volatility. The test result of management ownership influence to earning volatility can be seen the line coefficient about -0.06, p value 0.04 ( $p < 0.05$ ) and line coefficient error standard about 0.033 is significant and positive. Based on test result. line coefficient of institutional ownership influence is 0.12,  $p = 0.01$  ( $p < 0.01$ ) and line coefficient error standard about 0.033 is not significant. The influence independent audit committee to earning volatility can be seen that line coefficient 0.03,  $p = 0.14$  ( $p > 0.05$ ) and line coefficient error standard about 0.033. is not significant and negative and test of audit quality influence to earning volatility can be seen that line coefficient about -0.03,  $p = 0.16$  ( $p > 0.05$ ) and line coefficient error standard about 0.033 is not significant and negative to earning volatility.

Ownership management influences significantly and negatively to earning volatility. institutional ownership influences significantly and positively to earning volatility, independent audit committee influences negatively and it is not significant with earning volatility and audit quality does not significantly and negatively influence earning volatility. And accrual management variable influences negatively with coefficient value -0.08 and significant with  $p = 0.01$  to earning volatility.

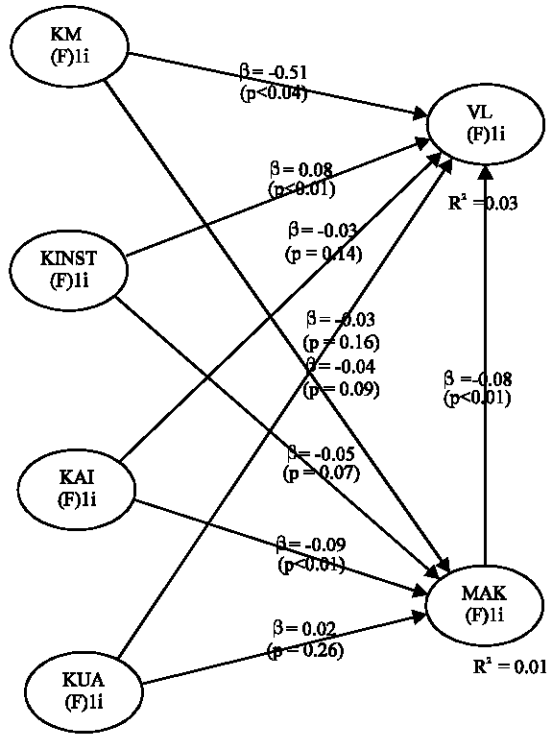


Fig. 2: Model of CG relation to EV and accrual management of unhedged company

Management ownership variable, institutional ownership and independent audit committee influence significantly and negatively to accrual management and audit quality does not influence significantly and positively to accrual management. Next, the test result of path coefficients and p-value to see the amount of coefficient and significance level as below: t-statistic =  $-31 < -1.96$ , Table 1 ( $\alpha = 5\%$ ) shows that both lines are different significantly between Inst. MO with AM in Hedged and Unhedged Companies. For the result of research hypothesis, it can be summarized in Table 2 as follow: Ownership, AIC: Independent Audit Committee, AQ: Audit Quality

**Based on the test and discussion presented on several findings related to research hypothesis are:** Management ownership influences the earning volatility negatively which means the management ownership gives more influence in earning volatility reduction. On the other hand, less management ownership will give influence in rising earning volatility. This research result is similar with the perspective of efficiency contract (Efficiency Theory) that states a company that has an efficient contract can make the earning quality that is reflected in financial information quality that is relevant

Table 1: Difference test hedged and unhedged company with multigroup

Notes	Inter variable relation	Hedgeds	Unhedgeds	Results
		company (Path sample 1)	company (Path sample 2)	
Path coefisien	AM-Earning V	0.180	-0.080	Different
	MO-Earning V	-0.510	-0.060	Different
	KINS-TEarning V	0.080	0.120	Different
	IAC-Earning V	-0.410	-0.030	Different
	IAC-Earning V	0.060	-0.030	Different
	MO-OM	-0.270	-0.040	Different
	IC-AM	-0.340	-0.050	Different
	IAC-AM	0.110	-0.090	Different
	AQ-AM	-0.290	0.020	Different
Standar error	AM-Earning V	0.096	0.033	-
	CG-Earning V	0.096	0.033	-
	CG-AM	0.096	0.033	-
	CG-AM	0.096	0.033	-

Table 2: Summary of hypothesis result test

Variables	Hypothesis	t-statistics	Results
MO-EV	H <sub>1a</sub>	$-45 < -1.96$ ( $\alpha = 5\%$ )	Different
IO-EV	H <sub>1b</sub>	$-4 < -1.96$ ( $\alpha = 5\%$ )	Different
IAC-EV risk	H <sub>1c</sub>	$-38 < -1.96$ ( $\alpha = 5\%$ )	Different
AQ-EV	H <sub>1d</sub>	$9 > 1.96$ ( $\alpha = 5\%$ )	Different

AM : Accrual Management, MO : Ownership Management, IO: Institutional Ownership, AIC: Independent Audit Committee, AQ: Audit Quality

and reliable and earning quality can be used as a tool of efficient performance. Agency theory that states conflict between management and owner can be mitigated by monitoring internal mechanism with management ownership. Institutional ownership negatively influences earning volatility which means the more institutional ownership, the stronger control will be done by the external party to the company so it causes institutional ownership is effectively used as management monitoring tool and increases the trust of institution investor in investing.

Independent audit committee negatively influences the earning volatility which means by performing the function and responsibility held, the independent audit committee can play a role in decreasing opportunist behavior (accrual manipulation) that is done by the managers and reduce earning volatility. Therefore, the quality of corporate governance through the independent audit committee as internal mechanism reduces the earning volatility. Audit quality positively influences earning volatility which means audit quality tends to support the quality of internal control mechanism because the high accrual transaction does not function to decrease earning volatility. Audit quality described in sample company does not mitigate earning volatility on company operation because earning volatility tends to be influenced by macro economy, market mechanism and government policy in tax section. The test result answers the first research question.

Managerial ownership has positive influence and does not significant toward accrual management which

means the management ownership does not decrease accrual management. This research is consistent with prediction (Agency Theory) that incentive to manage earning with managerial stock ownership is lower and cannot be used as monitoring internal mechanism on management opportunist behavior. Institutional ownership significantly and negatively influences accrual management which means a higher institutional ownership (outsider ownership) can decrease accrual management and the role of institutional ownership mitigates accrual management and function as monitoring external mechanism.

Independent audit committee significantly and negatively influences accrual management which means independent audit committee can mitigate management opportunist behavior. Independent audit committee plays an important role in hampering the practice of company accrual management. Audit quality does not significantly and positively influences accrual management which means audit quality in this research cannot be used as financial information source to decrease accrual management behavior and functions as a tool in increasing financial information quality. Accrual management influences earning volatility that means it shows the higher opportunist behavior, accrual management can reduce earning volatility. The difference between hedged and unhedged company toward the relation of corporate governance and earning volatility since finance hedging function in decreasing earning volatility gives a different result between company and hedged-category companies and unhedged-category companies as follow.

A company with hedged category; management ownership is a monitoring internal mechanism that mitigates opportunist behavior through accrual management and earning volatility while audit quality as internal mechanism that mitigates opportunist behavior through accrual management. Institutional ownership is a monitoring external mechanism that mitigates opportunist behavior through accrual management and independent audit committee as external mechanism functions to decrease risk/earning volatility. A company with unhedged category; management ownership is a monitoring internal mechanism that mitigates opportunist through accrual management and earning volatility. Institutional ownership and independent audit committee is a monitoring external mechanism that mitigates opportunist behavior through accrual management. The result of this test answers the fourth research question. Some important notes from this research finding in hedged companies, institutional ownership and audit committee as monitoring mechanism mitigate the

management opportunist behavior. Unhedged companies; management ownership directly decreases earning volatility as internal mechanism while management ownership and institutional ownership are the internal and external mechanism that mitigate the management opportunist behavior.

## **CONCLUSION**

The implication for hedged companies, institutional ownership decreases accrual management opportunist behavior and does not decrease earning volatility because institutional ownership still focuses as a tool in monitoring accrual management opportunist behavior. Independent audit committee can handle risk/earning volatility and increase efficient contract and does not mitigate management opportunist behavior since the independent audit committee does not function efficiently to decrease accrual management. The implication for unhedged company, institutional ownership and independent audit committee can mitigate opportunist behavior of the management and does not solve earning volatility because institutional ownership and independent audit committee function as a tool in monitoring accrual management behavior and efficient contract. Audit quality variable does not solve risk/earning volatility and does not mitigate management opportunist behavior because it has not functioned as monitoring tool yet.

Financial hedging performance by applying hedging with PSAK 55 (Indonesia) and FAS 39 the obligatory one that is managing hedging activity implementation and financial derivative accountancy. The reference makes the company has proper standardize of hedged company so that the implementation of hedging activity can be the company's competitive superiority that can give positive implication in risk reduction or company earning volatility.

## **LIMITATIONS**

The restrictiveness of this study is the research data that is the number of samples that uses hedged company is not identified as the characteristics of the finance and non finance company from the observation period of 2010-2014 and there is only more or less 5% of the go-public companies that perform hedging activity in Indonesia. The next restrictiveness is in the proxy measurement variable that is the one that uses one measurement proxy. For example, accrual management variable used in this research is the modification by Weng *et al.* (2014). The variable measurement of earning volatility uses deviation standard from operational profit. Some other measurement like daily stock volatility and

others. Audit quality variable uses current accrual and some other measurements like; earning surprise benchmark, industry specialization and other audit quality characteristic like fairness dan informativeness.

### RECOMMENDATIONS

Since, there is a limitation in this research to overcome the agenda of future research, that is Financial hedging activity that can be this research is found that hedging activity is assumed to be complementary in unhedged company and a substitute for hedged company. Hedging activity as a monitoring mechanism is possible in the future research. Financial hedging activity and operational hedging is used as exogenous variable and moderator that can reduce accrual management and decrease earning volatility so that by positioning both of them as exogen and moderator variable a result can be gained as the restraint of manager opportunistic behavior and efficient contract to decrease earning volatility. The measurement of audit quality variable in this research with current accrual and it is hoped that the future research uses other measurements like big 6 and non big 6, earning surprise benchmark, industry specialization and other audit quality characteristics like fairness and informativeness to reduce management opportunistic behavior and increase efficient contract. It is hoped that the future research uses mediator variable beside accrual management, like accountancy profit quality, finance hedging regulation and operational to overcome earning volatility.

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