

## VALUE RELAVANCE OF ACCOUNTING INFORMATION AND EARNINGS MANAGEMENT BEFORE AND AFTER THE CONVERGENCE OF IFRS PERIOD

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### ABSTRACT

*This study aims to examine and analyze the change of value relevance of accounting information and earnings management in the period of before and after the IFRS convergence in Indonesia's manufacturing companies. This research uses 310 manufacturing companies in Indonesia which were obtained by using purposive sampling method. The observation periods used in this research are 2011, 2012, 2014 and 2017. The measurement method for the relevance of accounting information utilizes a model developed by Ohlson (1995), using a proxy for measuring earnings per share (EPS), book value per share (BVPS), and cash flow per share (EPS). Analysis of changes in the average value of the value relevance of accounting information uses the estimated value of adjusted R<sup>2</sup> (R square). The method of measuring earnings management utilizes the model of Kothari et al. (2005) with the proxy measurements namely discretionary accruals (DA<sub>it</sub>). Analysis of changes on the average value of earnings management uses one-factor analysis (one way annova). The results of the study shows there are an increasing in the average value of the value relevance of accounting information and a decrease in the average value of earnings management from the period of before the adoption of IFRS until after the implementation of IFRS. Empirically, the results of this study support the statement that IFRS is able to encourage the quality achievement on financial statements which are more relevant in its value on accounting information and has minimum practices on earnings management. Manufacturing companies in Indonesia that implement the convergence of IFRS are proven to be able to minimize the average value of discretionary accruals and are able to improve the quality of its financial reporting which make its financial statements to be way more transparent and credible. IFRS also gives an effect on escalating the sales volatility of shares of the manufacturing companies in Indonesia. Therefore, there is a need of government's regulation which churging the adoption of IFRS convergence for all companies in Indonesia.*

Key words: Value Relevance, Earnings Management, IFRS

### INTRODUCTION

The financial reporting system is an item or attribute of accounting in which its development is quite significant in companies around the world, including Indonesia. The development of financial reporting systems in Indonesia is often associated with general demands in the capital market, where those demands focus on the publication of information on companies in Indonesia that is transparent and credible for investors in making investment decisions in the future (full information for stakeholders). The full information demands for stakeholders represent two core criteria, namely the value relevance of accounting information and minimum earnings management practices. It means that the indirect development of financial reporting systems is followed by the development of demands for a qualified financial statements in which its value of accounting information must be relevant and has less contribution of earnings management practices. This demand indirectly encourages the financial reporting system to combine with a Financial Accounting Standard or *Standar Akuntansi Keuangan* (SAK) in which having an integrity so it can meet the demands of a full information for stakeholders. Based on the explanation above, it can be concluded that the Financial Accounting Standards (SAK) is an important point for achieving the objectives of the company, to present a full financial information for stakeholders.

The international SAK currently adopted in Indonesia, IFRS (International Financial Reporting Standards), is a crucial choice to overcome the problem of the relevance of accounting information and earnings management. The principles in IFRS reporting standards, that adopt fair value and use realization value and fair value, are considered to be more independent and impartial (Prihatni et al., 2016). Yet, has IFRS been able to meet the demands of financial statements that are relevant to the value of accounting information and is it has less earnings management practices in companies in Indonesia?

Previously, Indonesia had implemented accounting standards based on US GAAP by provided concessions to choose accounting methods, hence it gave an easier way for managers to conduct earnings management (rule-based). After switching to principle-based IFRS, the contents of financial statements are more likely to use fair value and contain more disclosures in each item of financial statements (Cahyati, 2011; Edvandini et al. 2016 Latridis et al. 2010). This condition is positioning the IFRS as a determining factor on achieving the quality of financial reports. However, the conditions that occur in Indonesia at this time have assumed things that are inversely proportional about IFRS as a determining factor to generate qualified financial reports. IFRS accounting standards in Indonesia are still in conflict today due to the mismatch on its solving effect in its application. IFRS is still not in accordance with the economic paradigm in companies in Indonesia if it is implemented as a whole (IAI public news, June 25, 2017 edition).

The contradictory phenomena above are increasingly supported by different opinions from the result of researches in recent years related to the relationship of IFRS and the value relevance of accounting information and earnings management. For instance, Paulo et al., (2013) who through their research said that the increasing or improvement in the value relevance of accounting information after IFRS adoption was slow and did not happen significantly. Inversely, Mongrut et al. (2018) stated that the

adoption of IFRS increases the value relevance of accounting information by fulfilling the transparency element. The implementation of fair value-based of IFRS is able to boost transparency a bit better without a need to make a preventive effort such as improving the capabilities of audit quality for companies. This assumption was later challenged by DeFond et al. (2018) through his research which stated that the adoption of IFRS actually enhances earnings management rather than earnings volatility. The contradictions related to the solving effects that are presented by IFRS accounting standards and the differences in research results increasingly demonstrate the contradictory relationship of IFRS adoption towards the relevance of accounting information and earnings management in Indonesia. This emphasizes the need for further research to analyze related to the changes in the value relevance of accounting information and earnings management during the period or the implementation of IFRS in companies in Indonesia.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The drive to achieve a relevant financial reporting system on its financial information and less earnings management practices in its report are a concrete reason of why Indonesia was adopted IFRS and converged it into PSAK or Statements of Financial Accounting Standards (SFAS). The value relevance of the accounting information is a form of assessment of how well the value and quality of accounting information can match the needs of stakeholders (investors) for the future decision making (Barth et al., 2001). The quality of information in this context is information that is relevant to accounting information and it is influenced by one of the core factors, namely accounting standards which act as a set of regulations (Verriest, 2007).

Earnings management which is also become a consideration in adopting IFRS, generally proceeds from a manager's dysfunctional actions which mostly arise in agency relationships (agent contracts) formed by agents (managers) and principals (owners) (Jensen & Meckling, 1976). IFRS as an international standard is used as the main key to fulfill the element of value relevance in accounting information and minimize earnings management towards the countries in which adopting IFRS. Saudagaran (2001) said that the use of IFRS can escalate transparency, openness and comparability. Tarca (2004) argued that higher requirements of information disclosure and financial reporting quality which originated from IFRS adoption can reduce information asymmetry and offer positive signals to investors.

### The Value Relevance of Accounting Information Before and After IFRS Adoption

Based on the signaling theory, the information which is published as an announcement will give a signal to investors in making investment decisions (Hartono, 2003: 392). These signals are then analyzed and interpreted as good news or bad news for an event (Wolk et al., 2004). This information must be relevant in accordance with actual events in the company so it can help to change the expectations or assessment of investment's decisions in the future (Sharpe, 1997: 211).

According to the signaling theory, the achievement of relevant information is assumed to be fulfilled along with the adoption of IFRS. Collins et al. (1997) and Franchis et al. (1999) said that the relevance of earnings and book value information illustrate a slight upward shift, which mean that there is an existence of the value relevance of earnings and book value in the IFRS adoption period. Keliat (2009) through his research found that the fair value of IFRS affects the relevance of the value of accounting information and has an effect on elevating the company's stock price by looking at the proxy of economic profits. These findings are consistent and in line with the results of research which were conducted by Miller et al. (1961). However, in recent years some research show different results, for example, Paulo et al. (2013) which in his research found that an increase or improvement in the relevance of accounting information after the adoption of IFRS runs slowly and does not occur significantly. Differences in the results of researches indicate a contradictory relationship related to the relationship of IFRS standard and the value relevance of accounting information, therefore the suggested hypothesis is:

**H1: There is an increase in the value relevance of accounting information from the period of before to after the adoption of IFRS, especially in the efficient period and the most recent period of IFRS implementation.**

### Earnings Management Before and After IFRS Adoption

Agency theory explains that managers as top management who manage the company have a possibility on having opportunistic behavior and they tend to maximize their personal benefits through earnings management practices. Earnings management is a form of management intervention in the external financial reporting process with the intention of gaining personal benefits by influencing investor perceptions through the company's economic performance or to influence a contract that depends on financial statement numbers (Healey & Wahlen, 1999). The form of earnings management in the agency relationship by managers and company owners arises due to the information asymmetry.

Earnings management practices which are almost be done by companies in every country encourage IFRS to become a standard that can produce a high quality of financial report through the basis of fair value. IFRS is expected to slightly remove permissible alternatives in accounting estimation and as the results, it can give a little space for managerial policy to enter by requiring accounting measurements to better reflect the company's economic position and performance (Dimitripoulos et al., 2013).

Barth et al. (2007) who examined the relationship between the application of IFRS International Accounting Standard and the high level of accounting quality by using a sample of 21 countries which adopted IAS between 1994 and 2003. They obtained evidences that accounting values in companies which use IAS have a higher level of accounting quality which is signed by the reduction of earnings management, recognition of losses and higher value relevance are way more timely compared to those who did not implement IAS. Dimitripoulos et al. (2013) in his research show that the implementation of IFRS contributes to the reduction of earnings management, timely recognition of losses, and lift up the value relevance. Thus, the propose hypothesis is:

**H2: There is a decrease in earnings management from the period of before until after IFRS adoption especially in the efficient period and the latest period of IFRS implementation.**

## RESEARCH METHODOLOGY

This study aims to examine the changes in the value relevance of accounting information and earnings management in different times of IFRS implementation, which are the period of before the adoption in 2011, the post-adoption period in 2012, the efficient implementation period in 2014 and the latest period of IFRS implementation in 2017. This study intends to explore how the changes in the financial reporting system of manufacturing companies in Indonesia become more relevant in its value of accounting information and has less earnings management practices during the IFRS implementation in Indonesia.

### Population

The population in this study is all companies in Indonesia that are classified as manufacturing companies that have gone public and listed in Indonesia Stock Exchange.

### Sample

The samples in this study had been collected by using purposive sampling method. The criteria of the samples are:

1. Manufacturing companies that are listed in Indonesia Stock Exchange at least a year.
2. Manufacturing companies that report its financial statements during the observation period of 2011, 2012, 2014 and 2017.
3. Manufacturing companies which during the observation period have positive earnings and cash flow values.
4. Manufacturing companies that use the currency of rupiah in their financial statements.
5. Companies that meet the needs of data to examine this study.

The final numbers of the collected sample in this study are 310 manufacturing companies. Those numbers of company in each observation period are divided to 80 companies in 2011, 87 companies in 2012, 65 companies in 2014, and 78 companies in 2017.

### Data Collection

The type of data in this study is secondary data. The data of financial and capital market were collected from the official sites of Indonesia Stock Exchange ([www.idx.co.id](http://www.idx.co.id)) and Yahoo Finance ([www.yahoofinance.com](http://www.yahoofinance.com)).

### Operational Definition and Measurement of Variables

The value relevance of the accounting information is the ability of the numbers listed in financial statements that can be useful in making investment decisions by investors and creditors. Information on financial statements is relevant if the information is delivered in time and has benefits for its users (Prihatni et al., 2016).

The test of the value relevance uses a price model developed by Ohlson (1995), Barth et al. (2008), Karampinis et al. (2011), and Alali et al. (2012). The test of the value relevance of accounting information in this study utilizes three elements of financial statements namely earnings per share, book value per share, and cash flow per share.

$$\text{Earnings per share} = \frac{\text{Net Profit}}{\text{Numbers of outstanding shares}}$$

$$\text{Book value per share} = \frac{\text{Total Equity}}{\text{Numbers of outstanding shares}}$$

$$\text{Total cash flow per share} = \frac{\text{Total Cash Flow}}{\text{Numbers of outstanding shares}}$$

### Earnings Management

Earnings management is a form of intervention that is generally performed by management in the form of manipulating the external financial report (Schipper, 1989). The used proxy to measure earnings management in this study is discretionary accrual ( $DA_{it}$ ) with performance matched discretionary accrual as the calculation model (Kothari et al., 2005). The reason on using discretionary accrual is because the developing companies will boost their accrual values by aggressively lift up the sales on its credit from year to year (Kothari et al., 2005). The calculation method was begun by finding the total accruals through this formula:

$$TACC_{it} = \text{Net Income} - \text{Cash Flow Operation}$$

Furthermore, the results were inserted in the model of Kothari et al. (2005):

$$\frac{TACC_{it}}{TA_{t-1}} = \beta_1 \left[ \frac{1}{TA_{t-1}} \right] + \beta_2 \left[ \frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{t-1}} \right] + \beta_3 \left[ \frac{PPE_{it}}{TA_{t-1}} \right] + \beta_4 ROA_{it} + \varepsilon_{it}$$

$$NDA_{it} = \beta_1 \left[ \frac{1}{TA_{t-1}} \right] + \beta_2 \left[ \frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{t-1}} \right] + \beta_3 \left[ \frac{PPE_{it}}{TA_{t-1}} \right] + \beta_4 ROA_{it}$$

$$DA_{it} = \left[ \frac{TACC_{it}}{TA_{t-1}} \right] - NDA_{it}$$

Information:

TACC<sub>it</sub> = Total accrual of company *i* in year *t* (*net income – cash flow from operation*)

TA<sub>it-1</sub> = Total assets of the company *i* in year *t* in the previous year (*t-1*). Value of 1/TA<sub>it-1</sub> is in log 1/TA<sub>it-1</sub>

NDA<sub>it</sub> = Non-discretionary accrual of company *i* in year *t*

ΔREV<sub>it</sub> = Net sales of company *i* in year *t* minus net sales in previous year (*t-1*)

ΔREC<sub>it</sub> = Accounts receivable of company *i* year *t* minus accounts receivables of company *I* in the previous year (*t-1*)

PPE<sub>it</sub> = Fixed assets of company *i* in year *t* (property, plan, and equipment)

ΔROA<sub>it</sub> = Return On Asser (net income before tax divided by total assets)

|DA<sub>it</sub>| = Absolute discretionary accrual of company *i* in year *t*

β<sub>1</sub>, β<sub>2</sub>, β<sub>3</sub>, β<sub>4</sub> = Fitted Coefficient obtained from the regression in equation 3

### DATA ANALYSIS METHOD

There are two examinations in this study. First, examining the value relevance of accounting information by using the model of Ohlson (1995) through looking at the level of significance and estimating the adjusted R<sup>2</sup> value. Second, the test of management uses the model of Kothari et al. (2005) to collect the value of earnings management and then verify it by using one-factor analysis (one way anova) to determine the average value of earnings management per year and the level of significance of the differences among the overall earnings management. The hypothesis testing model of the value relevance of accounting information is:

$$Y = \beta_0 + \beta_1 \text{EPS} + \beta_2 \text{BVPS} + \beta_3 \text{CF} + \varepsilon$$

Information:

Y = Stocks Prices at the submission time of the financial statements

β<sub>0</sub> = Intercept or constant

EPS = Earnings per share

BVPS = Book value per share

CF = Cash flow per share

β<sub>1-3</sub> = regression coefficient with proxy of 1 to 3

ε = error term

The level of significance uses the level below 1% (significant < 0.01) for decision-making of the estimated adjusted R<sup>2</sup> on the test of the increasing of value relevance in accounting information. Earnings management test uses one-factor analysis (one way anova) in which applying a significance level of 5% (if the probability is > 0.05 for accepting the hypothesis, yet if the probability is < 0.05 then the hypothesis is rejected).

## RESEARCH RESULTS

### Descriptive Statistics

Table 1: The result of Statistical Descriptive test of value relevance

	Year	N	EPS	BVPS	CF	Y
<b>Minimum</b>	2011	80	0,136	0,002	0,001	84,00
	2012	87	0,000	-2813,933	-31,312	50,00
	2014	65	0,019	-2254,872	-64,861	50,00
	2017	78	0,043	-139,166	0,041	50,00
<b>Maximum</b>	2011	80	32071,523	25166,967	11789,701	62050,00
	2012	87	28821,120	37357,444	18158,114	56300,00
	2014	65	4458,035	17269,846	4476,350	60700,00
	2017	78	5840,301	21926,057	3783,500	83800,00
<b>Mean</b>	2011	80	330,69014	1820,50739	306,49812	2803,3849
	2012	87	385,13136	1717,02950	336,37546	3051,8427
	2014	65	1080,02992	2444,88744	647,31908	3793,1312
	2017	78	1144,80216	2396,56000	684,05254	5149,7125
<b>Std. Deviation</b>	2011	80	765,404603	3206,852812	664,066423	8110,79795
	2012	87	820,841333	3611,562420	819,226959	7434,71180
	2014	65	3889,025598	5139,695907	2108,403872	9490,41597
	2017	78	4326,636963	5504,244261	2262,015730	13475,24895

**Table 2: The Result of Statistical Descriptive Test of Earnings Management**

DA <sub>it</sub>	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Before IFRS	63	-12,62304	0,640687	0,080719	-14,185	-11,449
Adopting IFRS	78	0,29248	0,103956	0,011771	0,024	0,563
Efficient IFRS	56	0,22847	0,083179	0,011115	-0,006	0,406
Latest Year	53	-,92089	0,422432	0,058025	-1,531	0,278
Total	250	-3,23380	5,493554	,347443	-14,185	0,563

Table 1 illustrates the flow changes in the value relevance of accounting information in manufacturing companies in Indonesia which significantly escalated by the time from 2011 to 2012 up to 2014 and 2017. It is indicated that by a rise in the mean value of each indicator in which measuring the value relevance variable of accounting information at each observation period.

The indicator of earnings per share (EPS) has an average value that inclined significantly from 2011 to 2017. The results of this test means that IFRS is able to boost value relevance in financial reporting systems that are characterized by the inclining performance of earnings per share in manufacturing companies in Indonesia. The lowest minimum value of earnings per share of manufacturing companies is in 2012 (post-implementation period of IFRS) while the maximum value of earnings per share is in 2017 (the latest period of IFRS implementation).

The indicator of book value per share (BVPS) which is the indicator to examine the value relevance of accounting information also experience an increase on its average value from 2011 to 2017, although there is a slight fluctuation in 2011 and 2012. Overall, the test results show that IFRS is able to increase the value relevance in the company's financial reporting system by raising the book value per share in circulation which has an impact on the equity and value of the manufacturing companies in Indonesia. The lowest minimum BVPS value is in 2012 while the highest maximum value is in 2017.

Changes in the average statistical value also occur in the CF indicator (cash flow per share). Changes in the average CF value also increase from 2011 (the period before IFRS adoption) to the period after IFRS adoption in 2012. The increase in the average value of cash flow also significantly incline in the two additional periods suggested, namely the efficient period of IFRS implementation (2014) and the latest period of IFRS implementation (2017). The results of this test demonstrate that IFRS is able to advance the relevance of value in the financial reporting system of manufacturing companies in Indonesia in terms of reporting on the company's cash flow. The lowest minimum value of cash flow per share is in 2011 while the highest maximum value of CF is in 2017.

The stock prices (Y) also experience a change in average value since the adoption of the IFRS standard in Indonesia. In table 1, it is known that the average value of stock prices boost significantly from 2011 to 2017. The increasing value of stock prices illustrate the contribution of IFRS standards towards the value advancement in Indonesia's manufacturing companies. The lowest (minimum) stock price is in the range of 50.00 while the highest (maximum) stock price is in the range of 83800.00.

Table 2 demonstrates the changes in the average value of DA<sub>it</sub> which is fluctuate. It only decreases from the period of before the implementation of IFRS in 2011 to the post period of IFRS adoption in 2012. In 2014, the average value of DA<sub>it</sub> declines again until it finally increase again in 2017 or in the latest period of IFRS implementation. The changes in fluctuating average of earnings management indicate that there is a process of adjusting the implementation of IFRS from the US GAAP standard in manufacturing companies in Indonesia until it finally able to be well structured to suppress earnings management practices in Indonesia. Overall, it can be concluded that IFRS international standards are able to suppress the interventions in earnings management practice in the financial statements of manufacturing companies in Indonesia through a declining outcomes in DA<sub>it</sub>. The highest maximum value of DA<sub>it</sub> (earnings management) is around 0.563 while the lowest minimum value is -14.185.

**The Test of Hypothesis 1: The Value Relevance of Accounting Information Before and After the Adoption of IFRS**

**Table 3: The test results of adjusted R<sup>2</sup>**

The Regression Test of Value Relevance of Accounting Information Throughout the Period		
Year	Indicator	Adjusted R <sup>2</sup>
2011	EPS	0,319
	BVPS	
	CF	
2012	EPS	0,247
	BVPS	
	CF	
2014	EPS	0,661
	BVPS	
	CF	
2017	EPS	0,857
	BVPS	
	CF	

Based on table 3, it is known that the changes flow of adjusted R<sup>2</sup> value for the variable of value relevance of accounting information in each observation period show a fluctuating outcomes. In 2011 (the period before IFRS implementation) to 2012

(the post or after IFRS adoption), the adjusted  $R^2$  value of the relevance of accounting information declines. It indicate that from 2011 to 2012 the level of relevance of accounting information in manufacturing companies' financial reporting systems plummets slightly as an effect of the US GAAP transition to IFRS international standards. Changes in the reporting system from the historical cost basis to the fair value basis require adjustments that ultimately drive the achievement of the value relevance of accounting information for manufacturing companies in Indonesia to decline during this transition period.

The percentage change on the adjusted  $R^2$  of the value relevance of accounting information then increase significantly in 2014 (the efficient period of IFRS implementation) and 2017 (the most recent period of IFRS implementation). It shows that the implementation of IFRS had been well structured so it had encouraged the improvement in the quality of financial reporting as being more relevant onits value of accounting information in the financial statements of manufacturing companies in Indonesia. Overall, there is an increment in the percentage of the value relevance of accounting information in manufacturing companies in Indonesia since the period of before the adoption, the post adoption until the efficient period and the latest period of IFRS implementation, which is marked by an upsurge in the value of adjusted  $R^2$ . Thus, based on all the explanations above, it can be concluded that  $H_1$  is accepted, where there is an increase on the value relevance of accounting information in the period before and after the adoption of IFRS, especially in the efficient period of IFRS implementation and the most recent period of IFRS implementation.

**The Test of Hypothesis 2: Earnings Management Before and After The Adoption of IFRS**

**Table 4: The test results of one way anova and LSD post hoc test**

<b>Panel A : Average of Earnings Management in Each Period</b>			
<b>DA<sub>it</sub></b>			
<b>Period</b>	<b>N</b>	<b>Average</b>	
<b>Before IFRS</b>	80	-12, 62304	
<b>Adopting IFRS</b>	87	0,29248	
<b>Efficient IFRS</b>	65	0,22847	
<b>Latest Year</b>	78	-0,92089	

  

<b>Panel B : The Significance Level of Changes in Earnings Management Values For All Periods</b>		
<b>Period</b>	<b>F-Score</b>	<b>Significance</b>
<b>Before IFRS</b>	17062,358	0,000
<b>Adopting IFRS</b>		
<b>Efficient IFRS</b>		
<b>Latest Year</b>		

  

<b>Panel C: Significance of Differences of Earnings Management in Each Period</b>			
<b>DA<sub>it</sub> : Post Hoc Test :LSD</b>			
<b>Period</b>	<b>Comparison Periode</b>	<b>Average Differences</b>	<b>Significance</b>
<b>Before IFRS (2011)</b>	<b>Adopting IFRS</b>	-12,915520	0,000
	<b>Efficient IFRS</b>	-12,851515	0,000
	<b>Latest Year</b>	-11,702152	0,000
<b>Adopting IFRS (2012)</b>	<b>Before IFRS</b>	12,915520	0,000
	<b>Efficient IFRS</b>	0,64005	0,000
	<b>Latest Year</b>	1,213368	0,000
<b>Efficient IFRS (2014)</b>	<b>Before IFRS</b>	12,851515	0,000
	<b>Adopting IFRS</b>	-0,064005	0,000
	<b>Latest Year</b>	1,149363	0,000
<b>Latest Year (2017)</b>	<b>Before IFRS</b>	11,702152	0,000
	<b>Adopting IFRS</b>	-1,213368	0,000
	<b>Efficient IFRS</b>	-1,149363	0,000

Table 3 illustrates the outcomes of earnings management test. It shows that the average of discretionary accruals in each period decrease significantly with the fluctuative flows on its changes for each research period. The test results directly provide support for the second hypothesis. According to Panel A, it is known that the average of discretionary accruals in each period plummets significantly with fluctuating changes in flow. It can be summed up that in panel A, the changes in earnings management value have gradually declined until the last period of IFRS implementation. These results indirectly support the research conducted by Goncharov and Zimmerman (2003) which show that there is a significant downturn in earnings management for the period of US GAAP to the period of IAS implementation even though the adoption of IAS still provides many opportunities to practice earnings management in companies.

Panel B illustrates the average level of earnings management (DA<sub>it</sub>) between each group of the observation periods. The average level of earnings management is 17062,358 by fulfilling a probability level of under 5%. It demonstrates that there is a difference between earnings management values in each observation period. If comparing the flow of changes in the average earnings management in panel A and panel B, it can be concluded that there is a significant difference in the average value of earnings management in each observation period and there is a shrinkage on the average value of earnings management until the last period of IFRS implementation. The results of this test are strengthened by additional examinations namely the post hoc test in panel C which demonstrates the difference in the average value of earnings management in each period. The average value of earning management in each periode is significantly different. Overall, the results in this panel display a support towards the

hypothesis 2, that there is a plummets of value relevance of accounting information from the period of before the adoption of IFRS after the adoption of IFRS, especially in the efficient period and latest period of IFRS implementation.

## DISCUSSION

### The Value Relevance of Accounting Information Before and After The Adoption of IFRS

The results in table 3 denotes that the adjusted  $R^2$  value climbs up continuously from the period before IFRS implementation (2011) to the post period or after IFRS adoption (2012) to the efficient period of IFRS implementation (2014) and the latest period of IFRS implementation (2017) even if there is a fluctuate trend which happened from 2011 to 2012 due to the transition effect from the US GAAP standard to IFRS. The comparison of adjusted square ( $R^2$ ) supports the first hypothesis. The outcomes of this study also confirms the signalling theory. IFRS in this study can acts as an indicator to escalate the quality of financial statement as a source of accounting information in Indonesia's manufacturing companies. This has implications for the emergence of good news (good signals) for investors so that it affects the volatility of shares of manufacturing companies in Indonesia that implement IFRS. The outputs of this study corroborate the statements by Collins et al. (1997) and Franchis et al. (1999) in their study which explains that the relevance of earnings information and book value express an upward shift and there is a value relevance in earnings and book values in the period of IFRS adoption.

The implementation of IFRS also helps on escalating the financial position and financial performance in Indonesia's manufacturing companies (Tsalavoutas *et al.*, 2012). The improvement of stock performance marked by the increasing on stock volatility occur due to improvement of financial reporting quality, which is signed by an increase on the average value of the three proxies measuring the value relevance of accounting information namely earnings per share (EPS), book value per share (BVPS) and cash flow per share (CF). This outcomes are in line with the statements which developed by Keliat (2009) through his research. He found that fair value of IFRS affects the company's stock price by using a proxy of economic profits. Thornton (2006) and Clarkson et al. (2011) also found that adopting IFRS can have a positive impact between company's equity and the company's market value. Lev et al. (1999) and Kwon (2009) stated that cash flow is more informative than earnings because cash flow reduces the manager's manipulation problem on accrual earnings and cash flow is less influenced by accounting rules in line with IFRS adoption.

### Earnings Management Before and After the Adoption of IFRS

Based on table 4 on Panel A and B, it is known that the average value of discretionary accruals in each period has lessen significantly with the fluctuating changes flow. The significant fluctuating alter in the value of earnings management support the research of Firmansyah et al. (2016). He found that fluctuating changes in earnings management values indicate that IFRS implementation is still not able to give a guarantee towards the achievement of transparency and credibility on financial reports. One of the reasons in this research about the fluctuating changes of earnings management is because Indonesia is grouped as a code law country. La Porte et al. (1998) and Leuz et al. (2003) through their research show that the group of code law countries (including Indonesia) has an extremely low nature of protecting the investors and monitoring the mechanisms, hence the drive to take action on earnings management is huge. Therefore, the preventive quality of earnings management still cannot achieve the maximum point of being transparent and credible.

However, the overall test results demonstrate that IFRS is able to encourage the plummets on the average value of earnings management proven by the declining on the value of *discretionary accrual* up to the latest period of IFRS implementation even though its changes flow is fluctuate. The outcome of this test is directly give a support to Hypothesis 2, which stated that IFRS is able to suppress the intervention form of management in agency relationship which has been built by the agent and principal according to the definition of earnings management in agency theory (Jensen & Meckling, 1976) in Indonesia's manufacturing companies. The results also espouses the research made by Dimitripoulos et al., (2013) and Rohaeni et al. (2012) who stated that the use of IFRS on its fair value based will limit the flexibility in applying accounting methods which sometimes become a way for managers to do earnings management with the intention of reducing, increasing or even leveling the income from year to year.

## CONCLUSION

This study examines the transformation in the value relevance of accounting information and earnings management in the period before IFRS adoption, post or after IFRS adoption, the efficient period of IFRS implementation and the latest period of IFRS implementation. The measurement method for the relevance of accounting information uses a model developed by Ohlson (1995) using a proxy for measuring earnings per share (EPS), book value per share (BVPS), and cash flow per share (EPS). Analysis of changes in the average value of the value relevance of accounting information using the estimated value of adjusted  $R^2$  ( $R$  square). The method of measuring earnings management uses the model of Kothari et al. (2005) with proxy of the measurements namely discretionary accruals ( $DA_{it}$ ). Analysis of changes in the average value of earnings management using one-factor analysis (one way annova).

The outputs of this study show that the value relevance of accounting information increases proven by the value of adjusted  $R^2$  which continues to escalate until the last year of the IFRS implementation period in Indonesia. The results of this study also indicate a decrease in the average value of earnings management in manufacturing companies in Indonesia in line with the adoption of IFRS in Indonesia. Empirically, this research has proven that in the period of IFRS adoption in Indonesia, manufacturing companies in Indonesia begins to achieve full disclosure elements that are more relevant to the value of information with the actual conditions of the company's operational activities. Along with the adoption of IFRS, the financial reporting system of manufacturing companies in Indonesia tends to be more transparent and credible as well as has less form of

earnings management interventions. This is marked by a down turn on the average value of discretionary accruals. The effect of this achievement is the elevating on the company's value proven by the changes in the value of stock volatility which increase in manufacturing companies that implement IFRS-based SFAS.

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