

## The Impact of Isak 29 on the Value Relevance of Accounting Information (Empirical Study on Mining Companies Listed on the Indonesia Stock Exchange 2013-2015)

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### Abstract

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The purpose of this study is to examine whether ISAK 29 has an impact on the value relevance of accounting information of mining companies listed on the Indonesia Stock Exchange. This study attempted to reveal market reaction to accounting standard policies changes, ascertain accounting numbers can reflect the information that investors use in assessing the value of corporate equity. Reduction phenomenon in market capitalization and stock index of mining sector coincided when ISAK 29 start to be effective, indicate the negative reaction to ISAK 29 implementation. This phenomenon is contrast with DSAK's goal of adopting IFRS, which is to improve the functioning of the global capital market by providing relevant, more comparable and high-quality information to investors. The population used in this study is mining company listed on the Indonesia Stock Exchange in 2013 and 2015. Total mining company listed on the Indonesia Stock Exchange is 41 companies. Sampling method to select the sample in this research is purposive sampling. The total sample of this study is 32 mining companies for each year in 2013 and 2015. This study used price test with valuation model, the results showed an increase in adjusted R<sup>2</sup>, indicate that the implementation of ISAK 29 in Indonesia has an effect of increasing the value relevance of accounting information. Therefore, there is an increase in the value relevance of accounting information of mining companies in Indonesia after implementation of ISAK 29. Chow test result showed that the F-stat value is greater than F-table, the test results indicate a structural changes of the valuation model that used to determine the value relevance of accounting information after the implementation of ISAK 29. In conclusion, implementation of ISAK 29 effected the structural changes in the form of value relevance differences.

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**Keywords:** Value Relevance, ISAK 29, IFRS, Price Test, Valuation Model<sup>1</sup>.

### Introduction

The quality of accounting information can be represented by value relevance of accounting information. According to Barth (2000) value relevance is a study designed to assess how well particular accounting numbers reflect information that used by investors in assessing the firm equity value. Barth (2000) also said that value relevance defined in existing literature as the relationship between accounting amounts and security market value. One of the things that can affect the value relevance is changes in accounting policies and standards. Indonesia began to adopt International Financial Reporting Standards (IFRS) in 2008 with the target of the first application and a thorough evaluation in 2012, using gradual convergence strategy. One of the convergences that performed by DSAK is a convergence of IFRIC 20 into ISAK 29. ISAK 29 discuss when and how to record separately some of the benefits that arise from stripping activity and how to measure the benefits from initial recognition also advance recognition.

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Some of the significant impacts from the implementation of ISAK 29 is perceived by the mining company in Indonesia, which reduced the balance of the equity and stripping activity asset, also increased income tax expense.

The motive of this study is to reveal market reaction to accounting standard policies changes, especially ISAK 29, about to increase in value relevance of accounting information, which is the ability of accounting numbers to explain the market price. A certain accounting numbers can reflect the information that investors use in assessing the value of corporate equity even better. Reduction phenomenon in market capitalization and stock index of mining sector coincided when ISAK 29 start to be effective, indicate the negative reaction to ISAK 29 implementation. This phenomenon is contrast with DSAK's goal of adopting IFRS, which is to improve the functioning of the global capital market by providing relevant, more comparable and high-quality information to investors.

The decline of investor confidence is in line with the research result of Armstrong (2009) which claim a negative reaction to the IFRS gradual implementation on companies that domiciled in code law countries. Along with Francis and Schipper (1999) there is a popular claim declared if the value relevance of financial accounting information declines over time. Research of Cahyonowati (2012), Anas (2014), Rahmawati and Murtini (2015), and Hayati (2016) shows that IFRS can't increase the value relevance of accounting information. In contrast, Kargin (2013) investigated the value relevance of equity and earnings on a pre and post-IFRS convergence for Turkish firms that listed on Istanbul Stock Exchange from 1998-2011. The researcher found that the value relevance has increased in the post period 2005-2011. Meanwhile Chaibi (2016) also find evidence based on the sample of 36 companies of France (SBF120), that adopted the IAS / IFRS does not affect the value relevance of the expected R & D, while applying international standards positively affect the value relevance of capitalized R & D. Abdo (2016) investigated how far IFRS 6 has been the successful standard in harmonizing the accounting practice in the extractive industries.

## **Literature Review**

### **1. Positive Accounting Theory**

Positive accounting theory helps us for understanding the roots process of establishing accounting standards, the effects of various accounting standards across different individual groups, the allocation of resources, also why various groups are willing to spend resources to try to influence the standard-setting process (Watts and Zimmerman, 1978 in Milne, 2002). Positive accounting theory approach explains why accounting practices achieve a form as it is now, for instance, the theory should explain why many companies prefer to use the FIFO method rather than LIFO (Januarti, 2004).

### **2. Usefulness Of Accounting Information Measurement Perspective Approach**

There are two perspectives underlying the accounting standards constituent body policies, namely information perspective and measurement perspective. According to Scott (2015) information perspective underlies the approach of event study and measurement perspective underpinning the approach of measuring the usefulness of accounting information with value relevance methods. The measurement approach in decision-making is defined by Scott (2015) as an approach to financial reporting where accountants perform their responsibilities to the financial statements appropriately and with reasonable reliability, thereby increasing the obligation to assist investors in predicting the performance and value of the firm.

### **3. Clean-Surplus Theory**

The clean surplus theory by Ohlson (1995) forms the basis of the usefulness of accounting information measurement perspective approach with value relevance method. This theory assumes ideal conditions in the capital market including dividend irrelevancy (Scott, 2015). Ohlson's clean surplus theory shows that the firm's market value can be expressed in income statements variables and balance sheet variables.

#### 4. Value Relevance of Accounting Information

According to Puspitaningtyas (2012) Accounting information is the information content that can be obtained from the company's financial statements through fundamental analysis techniques. Value relevance is defined as the ability of accounting income to explain the price and market returns that occur in the same period (Hung and Subramanyam, 2007 in Karampinis and Hevas, 2011). According to Barth (2000) Value relevance is the relationship between the accounting numbers and the value of market securities. Accounting numbers are deemed to have value relevance if they have a significant relationship with the value of market securities.

#### 5. Relative Association Studies

Holthausen and Watts (2001) classify the study of value relevance into 3 categories, there are Incremental Association Studies, Marginal Information Content Studies, and Relative Association Studies.

Lamberg (1996) also classified relevance study into the same category. Relative Association Studies examines the relationship between market value and alternative size of bottom-line, this study tested the difference of  $R^2$  in regression by using different bottom-line accounting numbers. Accounting numbers with larger  $R^2$  indicate an increase in value relevance. Approximately 94% of a total of 62 studies on value relevance use association studies (Holthausen and Watts, 2001). This study included in relative association studies because in this study, looking for market value relationship with accounting variables, included in research methods.

#### 6. Accounting of Mining Company

IAI issued PSAK in relation to mining companies as set forth in PSAK 33 because mining companies need their own accounting. PSAK 33 applies to general mining accounting related to soil stripping activities and environmental management activities. PSAK 33 contains specific regulatory treatments to the mining industry, such treatment arrangements include a description of activities, costs incurred, accounting treatment, presentation, and disclosure.

#### 7. *Interpretasi Standar Akuntansi Keuangan (ISAK) 29: Biaya Pengupasan Lapisan Tanah Dalam Tahap Produksi Pada Tambang Terbuka*

ISAK 29 establishes accounting for the removal cost of waste minerals (stripping activity) in the production stage of the surface mine. The stripping cost of the surface mine is the cost incurred to dispose of a mine's overburden. The stripping activities occurring at the mine development stage prior to the commencement of production. ISAK 29 changed the practice of using average stripping ratios applied by PSAK 33 to cost or amount of revaluation less depreciation or amortization and impairment loss.

#### Hypothesis

Positive accounting theory helps us to understand the roots of establishing accounting standards process. This theory seeks to address the impact of published financial statements on stock prices. Therefore later the investors can understand the financial statements better, and it is expected to reduce the information asymmetry between the company and its shareholders because it will have an impact on the investor's assessment to the value of the company. Stock prices traded at any time reflect all the information of the company which investors know. Therefore if the information is well reflected, investors' assessment of the company will increase.

Seen from the results of previous research, several studies that use samples from company that domiciled outside Indonesia, proving an increase in value relevance after the adoption of IFRS, Such as Mousa (2014) who conducted research on the value relevance of IFRS adoption in Gulf Co-operation Council (GCC) countries using data from 40 samples of companies listed in Bahrain Bourse (BHB) from 2005 to 2011. The results showed an increase in the value relevance of IFRS implementation when using the price model.

Kargin (2013) examines the impact of pre and post-IFRS implementation on value relevance on Turkish companies listed on the Istanbul Stock Exchange (ISE) from 1998 to 2011. The result showed an increase in the relevance value of accounting information from the book value.

Hanna *et al.* (2011) examined the impact of IFRS implementation on the value relevance of book values and earnings of all public companies worldwide (world scope) in 2005. The result showed an increase in the comparability of financial statements after the adoption of IFRS.

Researchers who do research on companies in Indonesia states if IFRS has not been able to improve the value relevance of accounting information. As Hayati (2016) examined the value relevance of accounting information from IFRS convergence on manufacturing companies listed on the BEI from 2010 to 2013, The result showed no difference in the value relevance at the stage before and after the application of IFRS.

In addition to Hayati (2016), Rahmawati and Murtini (2015) analyzed the differences in the quality of accounting information before and after IFRS adoption in terms of earnings management and relevance. The population in the research of Rahmawati and Murtini (2015) are all companies listed on the IDX which amounted to 423 companies. The results showed that there was no significant difference in the quality of accounting information before and after the adoption of IFRS both in terms of earnings management and relevance. Anas (2014) examined the effect of IFRS implementation on the value relevance of accounting information with return model and price model. The results showed that the price model more strongly explains the value relevance of accounting information compared with the return model and the application of IFRS does not affect the value relevance of accounting information.

Research from Cahyonowati (2012) aims to explore the quality of accounting information in the period before and after the adoption of IFRS. with the result of the study showing that IFRS based standard application can not improve the quality of accounting information and the relevance of accounting profits to investment decisions as reflected in stock prices did not increase significantly in the period after IFRS adoption.

Nevertheless, there are also studies that show an increase in the value relevance of accounting information in Indonesia. As Sinarto and Christiawan (2014) study examined whether IFRS convergence increases the value relevance of earnings. The results showed that there is an increase in the value relevance of earnings after the implementation of IFRS and comprehensive income has a higher value relevance than net income.

Research from Suprihatin (2013) aims to test whether IFRS convergence can improve the value relevance of accounting information on companies listed on the Indonesia Stock Exchange. The results show that in the early stages of IFRS implementation increased the value relevance of the earnings, in the post stages of IFRS implementation proved to increase the value relevance of book value of equity and earnings.

In theory, DSAK's goal of adopting IFRS is to improve the functioning of the global capital market by providing relevant, more comparable and high-quality information to investors. According to the FASB relevant information is information that is able to make a difference in users decisions, by helping to evaluate the potential effects of past, present, future, and other future futures flows (predictive value) transactions or to confirm and correct prior evaluations (confirmatory value). Therefore, since ISAK 29 is an adoption of IFRIC 20 which is part of IFRS, then the value relevance of accounting information should be increase after the implementation of ISAK 29 because the company's value is better reflected in the financial statements. Thus, the hypothesis is proposed as follows: H: There is an increase in value relevance of accounting information of mining companies in Indonesia after the implementation of ISAK 29.

## Research Method and Data Analysis Techniques

The object of this study is the value relevance of accounting information and ISAK 29, this study aims to examine whether ISAK 29 has an impact on the value relevance of accounting information from mining companies listed on the Indonesia Stock Exchange. The target of this research aims to find evidence of the effect of ISAK 29 on the value relevance of accounting information in mining companies listed on the Indonesia stock exchange 2013-2015.

The data used in this research is secondary data. The data in this study are all mining companies listed on the Indonesia Stock Exchange during the period 2013-2015. Financial statements data are taken from the Indonesia Stock Exchange through the [www.idx.co.id](http://www.idx.co.id) website, the share price is collected from [www.duniainvestasi.com](http://www.duniainvestasi.com). Data sample used in this study is mining companies listed on the Indonesia Stock Exchange. For sampling technique, this research employed purposive sampling method. Company criteria used in this study are as follows:

- 1) Mining companies listed on the Indonesia Stock Exchange during the period 2013-2015 and registered before 1 January 2013.
- 2) Company issued audited financial statements by independent auditors consistently over the period 2013-2015
- 3) Availability of the data and information on the components used in this study for the period 2013 until 2015.

## Variable Operational Definition

### Value Relevance

According to Barth (2000) Value relevance is the relationship between the accounting numbers and the value of market securities, and accounting numbers are deemed to have value relevance if they have a significant relationship with the value of market securities. An equation developed by Ohlson (1995), called valuation framework, will be the benchmark in this study. With the model as follows:

$$P_{it+3m} = \alpha_0 + \beta_1 \text{EPS}_{it} + \beta_2 \text{BVPS}_{it} + \beta_3 \text{DNI}_{it} + \beta_4 \text{DNI} * \text{EPS}_{it} + \beta_5 \text{DNI} * \text{BVPS}_{it} + \beta_6 \text{Size}_{it} + \varepsilon_{it}$$

Explanation:  $P_{it}$  = Firm's market value  $i$  At three months after the end of the year  $t$ .

$\text{EPS}_{it}$  = Firm's earning per share in year  $t$ .

$\text{BVPS}_{it}$  = Firm's book value per share  $i$  in year  $t$ .

$\text{DNI}_{it}$  = dummy variable to control the influence of nonlinearity of the firm's loss condition, Given the value of 1

if the company loses, and 0 = if otherwise.

$\text{DNI} * \text{EPS}_{it}$  = Moderation for dummy variable of firm size multiplied with earning per share of company  $i$  in year  $t$ .

$\text{DNI} * \text{BVPS}_{it}$  = Moderation for dummy variable of firm size multiplied with Book value per share of company  $i$  in year  $t$ .

$\text{Size}_{it}$  = Company size as control variables proxied by total assets.

### Additional Analysis

Additional Analysis in this part of research is use to test the structural change of price model before the implementation of ISAK 29 and after the implementation of ISAK 29. According to Gujarati (2004) when we use a regression model involving time series data, it may happen that there is a structural change in the relationship between the regressand  $Y$  and the regressors. By structural change, we mean that the values of the parameters of the model do not remain the same through the entire time period. Sometime the structural change may be due to external forces or due to policy changes or action taken by Congress or to a variety of other causes. In this research, structural changes may occur due to the implementation of ISAK 29, therefore it is necessary to test to see the existing changes due to the implementation of ISAK 29.

This research use chow-test to find the significance different of structural changes of value relevance before the implementation of ISAK 29 and after the implementation of ISAK 29. If the F-stat is greater than F-table at 95% confidence level, therefore it showed a structural change (Gujarati, 2004), means the price model of value relevance before the implementation of ISAK 29 and after the implementation of ISAK 29 are different, therefore structural changes occurred after the implementation of ISAK 29.

## Research Result and Discussion

### Research Sample

The population used in this study is mining company listed on the Indonesia Stock Exchange in 2013 and 2015. Total mining company listed on the Indonesia Stock Exchange is 41 companies. Sampling method to select the sample in this research is purposive sampling. Criteria used in this study to select those companies are as follows:

- 1) Mining companies listed on the Indonesia Stock Exchange during the period 2013-2015 and registered before 1 January 2013.
- 2) The Company publishes their audited financial statements by independent auditors consistently during the period 2013-2015.
- 3) Data availability and information on components used in this study for the period 2013 to 2015.

Total 32 mining companies selected as the sample shown in table 1.

**Table 1 Mining Company Sample**

No.	Criteria	Total Population	Number of Company that Unsuitable Criteria	Total Sample
1.	Mining companies listed on the Indonesia Stock Exchange during the period 2013-2015 and registered before 1 January 2013	41	2	39
2.	The Company publishes their audited financial statements by independent auditors consistently during the period 2013-2015.	39	7	32
3.	Data availability and information on components used in this study for the period 2013 to 2015.	32	0	32

The total sample of this study is 32 mining companies for each year in 2013 and 2015. The list of companies that became samples in this study is shown in Table 2. below:

**Table 2 List of Company**

No	Code	Company name
1	ADRO	PT Adaro Energy Tbk.
2	ARII	PT Atlas Resources Tbk
3	ATPK	PT Barajaya Internasional Tbk
4	BSSR	PT Baramulti Suksessarana Tbk
5	BUMI	PT Bumi Resources Tbk
6	BYAN	PT Bayan Resources Tbk
7	DEWA	PT Darma Henwa Tbk
8	DOID	PT. Delta Dunia Makmur Tbk
9	GEMS	PT Golden Energy Mines Tbk
10	HRUM	PT Harum Energy Tbk
11	ITMG	PT Indo Tambangraya Megah Tbk
12	KKGI	PT Resource Alam Indonesia Tbk
13	MYOH	PT Samindo Resources Tbk
14	PKPK	PT Perdana Karya Perkasa Tbk
15	PTBA	PT Bukit Asam Tbk
16	PTRO	PT Petrosea Tbk
17	SMMT	PT Golden Eagle Energy Tbk
18	TOBA	PT Toba Bahra Sejahtera Tbk
19	ANTM	PT Aneka Tambang Tbk
20	CITA	PT <i>Cita</i> Mineral Investindo Tbk
21	DKFT	PT Central Omega Resources Tbk
22	INCO	PT Vale Indonesia Tbk
23	PSAB	PT J Resources Asia Pasifik Tbk
24	TINS	PT Timah (Persero) Tbk
25	ARTI	PT Ratu Prabu Energi Tbk
26	BIPI	PT Benakat Integra Tbk
27	ELSA	PT Elnusa Tbk
28	ESSA	PT Surya Esa Perkasa Tbk
29	MEDC	PT Medco Energi Internasional Tbk
30	RUIS	PT Radiant Utama Interinsco Tbk
31	CTTH	PT Citatah Tbk
32	MITI	PT Mitra Investindo Tbk

### Data Analysis

#### Descriptive Statistics Analysis Result

This study use value relevance as variable. Value relevance is proxied with Adjusted R2 obtained from the valuation model regression calculated by the following formula:  $Pit+3m = \alpha_0 + \beta_1EPS_{it} + \beta_2BVPS_{it} + \beta_3Size_{it} + \beta_4DNI_{it} + \beta_5DNI_{it} * BVPS_{it} + \epsilon_{it}$  To calculate the value relevance required information from financial statements and information from the capital market, includes Firm's market value (P), earnings per share (EPS) and book value per share (BVPS).

This study also added the firm size (Size) proxied with total assets, moderation variables  $DNI_{it} * EPS_{it}$ ,  $DNI_{it} * BVPS_{it}$  and net profit (DNI) as dummy variable to control the effect of nonlinearity for the company with loss condition, because companies with negative earnings value will be treated or analyzed differently by investors (Kargin, 2013). Descriptive statistics in this study were conducted in 2 stages, namely the stage before the implementation of ISAK 29 and after implementation of ISAK 29. Descriptive statistics will result in standard deviation and part values for each level of independent variables (Field, 2009) Descriptive statistics in this study can be seen in Table 3.

**Table 3 Descriptive Statistics****Panel A: Data Before The Implementation of ISAK 29**

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>Std. Deviation</b>
PRICE 2013	32	50.0	34200.0	2824.313	6394.9395
EPS 2013	32	-334.44	2090.27	111.8741	405.38655
BVPS 2013	32	-195.69	11423.69	1349.2891	2153.11164
SIZE (LN) 2013	32	25.7794694	31.9242225	29.037301370	1.4958806000
DNI 2013	32	0	1	.19	.397
DNI*EPS 2013	32	-334.44	.00	-29.3484	85.75284
DNI*BVPS 2013	32	-195.69	4594.86	220.2422	865.99762
Valid N (listwise)	32				

**Panel B: Data After The Implementation of ISAK 29**

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b>Mean</b>	<b>Std. Deviation</b>
PRICE 2015	32	50.0	17700.0	1925.500	3672.612
EPS 2015	32	-2564.71	941.00	-76.6453	524.5768
BVPS 2015	32	-1062.13	4030.82	825.0472	1062.825
SIZE (LN) 2015	32	25.86258	32.0105	29.189	1.4832528
DNI 2015	32	0	1	.41	.499
DNI*EPS 2015	32	-2564.71	.00	-143.6638	466.44293
DNI*BVPS 2015	32	-1062.13	2788.51	273.6672	728.94196
Valid N (listwise)	32				

Descriptive statistics in Table 3. (Panel A) showed the decline of the mean value of stock prices at the stage before the implementation of ISAK 29 that amounted to 2824,313 (in rupiah) and decline to 1925,500 (in rupiah) at the stage after the implementation of ISAK 29 in table 3. (Panel B), this matter is in line with the bearish market period in which the mining sector index fell around 41.25% during 2015 (year-to-date). The minimum value of stock price indicates that the company sampled before the implementation of ISAK 29 in Table 3. (Panel A) has the lowest share price at 50 (in rupiah) held by DEWA, and a maximum value at 34200.00 (in rupiah) held by ITMG. For the period after the implementation of ISAK 29 in Table 3. (Panel B), DEWA remains as the company with the lowest share price of 50 (in rupiah) and the maximum value still held by ITMG at 17700.00 (in rupiah). The drop in the maximum value of the stock price is in line with the decline of stock price mean value after the adoption of ISAK 29. According to Cahyonowati (2012) if the standard deviation is increase after the implementation of IFRS then stock prices become more volatile. In this study, stock prices became more stable after the adoption of ISAK 29, because the standard deviation decreased from 6394.9395 (in rupiah) to 3672.6118 (in rupiah), thus, the confidence about the certainty of return-on-investment increased.

Descriptive statistics in Table 3. (Panel A) showed that the mean value of net earnings per share decreased from 111.8741 to -76.6453 at the stage after the implementation of ISAK 29 in table 3. (Panel B). The minimum value of EPS at the stage before the implementation of ISAK 29 showed that the lowest EPS value is -334.44 held by PSAB, and the maximum value is 2090.27 held by ITMG. For the period after the implementation of ISAK 29, the sample has the lowest EPS value for -2564.71 that held by BYAN and the maximum value at 941.00 held by PTBA. Descriptive statistics for the mean value of BVPS decreased after the implementation of ISAK 29 from 1349.2891 to 825.0472, the decline of BVPS mean value is in line with the decline in market capitalization of mining sector companies listed on the Indonesia Stock Exchange about 37%.



The minimum value of BVPS before the implementation of ISAK 29 showed the lowest BVPS value is -195.69 that held by BUMI and the maximum value is 11423.69 held by ITMG. For the period after the implementation of ISAK 29, the sample has the lowest BVPS value at -1062.13 held by BUMI and the maximum value is 4030.82 held by PTBA. Descriptive statistics for net income (DNI) used to control nonlinear effects of a company with loss condition, DNI have the same maximum value and the same minimum value, that is 1 and 0. 1 for loss company and 0 otherwise. 19% of mining companies listed on the Indonesia Stock Exchange suffered losses in the period before the implementation of ISAK 29 and 41% of mining companies suffered losses after the implementation of ISAK 29. Descriptive statistics for firm size show the mean value before the implementation of ISAK 29 is 29.037301370 and the mean value after application of ISAK 29 is 29.188997830. It is showed an increase in the firm size and the difference is 0.151696 in the period after the implementation of ISAK 29. Almost all the variables in Table 3. Panel A and Panel B have a standard deviation that greater than the mean value. It is explains the data is spread and shows the data is different from one to each other, only DNI2013 and DNI2015 that almost close to the standard deviation of 0. It is indicates that the data has identical nature, and it is happening because DNI2013 and DNI2015 are dummy variables that use 1 for company with loss condition and 0 if vice versa.

### Hypothesis Test Result

This study uses Stock Price Test to reveal market reaction in accounting standard policy changes, specifically for ISAK 29 policy. In accordance with previous research, this study examined the difference of adjusted R<sup>2</sup> in regression, using a different bottom line from accounting numbers. A larger adjusted R<sup>2</sup> after the implementation of ISAK 29 indicates an increase in value relevance. This test uses Weighted Least Square Regression to find adjusted R<sup>2</sup>. The results are shown in Table 4.

**Table 4 Stock Price Test Result**

	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
Value Relevance before the implementation of ISAK 29	.676 <sup>a</sup>	.458	.353	1.326998096000000
Value Relevance after the implementation of ISAK 29	.873 <sup>a</sup>	.763	.717	1.247029505000000

Table 4.8. Presents the results of the value relevance of accounting information before the implementation of ISAK 29 and after the implementation of ISAK 29. The value relevance test focuses on the adjusted R<sup>2</sup> changes after the implementation of ISAK 29, according to Holthausen and Watts (2001) Accounting numbers with larger R<sup>2</sup> indicate an increase in value relevance. Therefore, it can be concluded that value relevance of accounting information has increased because of the implementation of ISAK 29.

WLS regression results showed an increase in adjusted R<sup>2</sup>. Adjusted R<sup>2</sup> before the application of ISAK 29 was 0.353 increased by 0.364 to 0.717 after the implementation of ISAK 29. These results indicate that the implementation of ISAK 29 in Indonesia has an effect of increasing the value relevance of accounting information. This empirical evidence supports the goal of IFRS adoption by DSAK, that accounting numbers can reflect information from firms that used by investors to assess the value of corporate equity even better after the implementation of ISAK 29. Therefore, the hypothesis is accepted, which there is an increase in the value relevance of accounting information of mining companies in Indonesia after implementation of ISAK 29.

### Additional Analysis Result

Additional analysis of the study was used to examine the structural valuation model changes before the implementation of ISAK 29 and after implementation of ISAK 29, there was an indication that the regression of the valuation model may not be the same, between the regressions before the implementation of ISAK 29 and after the implementation of ISAK 29. Therefore, additional analysis will use the Chow test, which is tested using the following formula:

$$F = \frac{(RSSR - RSSUR)/k}{(RSSUR)/(n1 + n2 - 2k)}$$

The chow test results are shown in Table 5.

**Table 5 Chow-test**

<b>CHOW TEST</b>	
RSSR	154.421
RSSUR	86.216
N	64
K	5
F stat (chow)	8.54431
F table	2.37

RSSR is residual of all data regression of valuation model in 2013 and 2015 for mining companies, the residual value of the data is 154,421 (see appendix 7). RSSUR is residual of data regression of valuation model from 2013 and 2015 separately, residual for the regression for 2013 data is 45,784 (see appendix 6), whereas the residual for 2015 data regression is 40,432 (see appendix 6), therefore, the value of RSSUR is  $45.784 + 40.432 = 86.216$ .

Calculating the F value and comparing it with F table, can show the structural differences in the regression model of 2 subpopulations, if the F value is significant at the 5 percent level. Therefore, the conclusion is that the two subpopulation variances are not the same (Gujarati, 2004). From Chow test result in Table 4.9. showed that the F-stat value is greater than F-table at 95% confidence level. The value of F-stat (8.59534) is greater than F-table (2.37). The test results indicate a structural changes of the valuation model that used to determine the value relevance of accounting information after the implementation of ISAK 29. In conclusion, implementation of ISAK 29 effected the structural changes in the form of value relevance differences.

## Discussion

Value relevance in this study using measurement perspective, which gives more emphasis on the quality of accounting numbers in the company's financial statements required by investors to take decisions, because the accounting numbers will be used as information to assess the value of the company. The increase of value relevance in this study improves the quality of accounting information in the financial statements used by investors to assess the company.

The positive accounting theory approach strongly emphasizes the importance of empirical research, to test whether accounting theory that has been proposed in many accounting theory literature can explain the accounting practices. Hypothesis testing shows an increase in value relevance after the implementation of ISAK 29, which means accounting numbers can explain the information of firms that investors use in assessing the value of corporate equity even better after the implementation of ISAK 29.

ISAK 29 is part of the IFRS adoption. The purpose of DSAK in adopting IFRS is to improve the functioning of the global capital market by providing more relevant, more comparable and high-quality information to investors. The increase of value relevance is an empirical evidence that accounting information is even better, and the ability of accounting numbers to explain the market value of the company is increased after the implementation of ISAK 29.

This research is consistent with Mousa and Desoky (2014) that found value relevance of accounting information has increased on Gulf Co-operation Council countries, also Abdo (2016) found evidence suggests that IFRS 6 has made a positive impact toward harmonizing accounting practices in the extractive industries around the world, In Indonesia, Sinarito and Christiawan (2014) found an increase in the value relevance of corporate profits after the application of IFRS. In contrast, Hayati (2016) support Karampinis and Hevas (2011), that suggest code law states, such as Indonesia, have weak investor protection, lack of law enforcement, and banking oriented funding, which mean, there is no difference in the value relevance in the pre- and post-IFRS implementation stages in Indonesia.

It may happen because the research is only until 2013, in which there still any of IFRS that has not been fully implemented such as ISAK 29. Based on *Bisnis.com* (2016), a total of 20 stocks in the mining sector grew positively since the beginning of the year. In fact, shares of PT Delta Dunia Makmur Tbk. (DOID) and PT Aneka Tambang (Persero) Tbk. (ANTM) shot over 100% year-to-date, DOID 109,26% and ANTM 104,05%. Along with investor optimism, this is one of possibilities effects from value relevance enhancement in 2015. In fact, that value relevance is increased after the implementation of ISAK 29.

Chow-test result further reinforces that the increase of value relevance after the implementation of ISAK 29 is significant, due to structural changes of the valuation model regression used in this study, which means two subpopulation variances for the period before the implementation of ISAK 29 and after the implementation of ISAK 29 are not the same, and there are structural changes in the form of value relevance differences.

## Conclusion

This study aims to obtain empirical evidence of value relevance enhancement in the period before the implementation of ISAK 29 and after the implementation of ISAK 29. This study used 32 mining companies listed on the Indonesia Stock Exchange for each year, in 2013 and 2015 as a sample. Based on the research results, the value relevance after the implementation of ISAK 29 is higher than the value relevance before the implementation of ISAK 29. Therefore, the ability of accounting numbers to explain the value of companies used by investors to assess the company's value from the financial statements of mining companies has increased.

## Implication

Based on the analysis result and conclusion above, it can be ascertained that the value relevance of mining companies listed on the Indonesian stock exchange increased after the implementation of ISAK 29. Adjusted  $R^2$  before the application of ISAK 29 was 0.353 increased by 0.364 to 0.717 after the implementation of ISAK 29. The increased of value relevance can be an evidence that DSAK goal is achieved. The increased of value relevance also can be a motivation for regulatory body to improve the performance when fixing, revising, adopting or establishing accounting standard. Therefore, the company can reflect their value more preferable after implementing the new regulation in the financial statements, that would give have a good effect on decision making.

## Limitation

This study has a limitation, which is not all mining companies has complete data. Data in this research obtained from the financial statements of mining companies in Indonesia listed on the Indonesia Stock Exchange.

## Future Research

- 1) Future research is suggested to use return model to test the value relevance of accounting information of mining company. Although according to Anas (2014) the price model is stronger than the return model to explain the value relevance, later findings from the return model can support the findings of the price model. Therefore, the results of the two models can generalize or build a general conclusion of the value relevance enhancement.
- 2) This study uses stock prices that in fact always change every time and will affect the results of the research. Thus, future research may add some period until 2016 or later, to see the effects and changes in stock prices.

## References

- Abdo, Hafez. 2016. *Accounting for Extractive Industries: has IFRS 6 harmonized accounting practices by extractive industries?*. Thesis. Nottingham Business School .
- Alfraih, Mishari M. 2016. Have financial statements lost their relevance? Empirical evidence from the frontier market of Kuwait. *Journal of Advances in Management Research*, Vol. 13 Iss 2 pp. 225 -239.
- Armstrong, Christopher S. 2008. Market Reaction to the Adoption of IFRS in Europe. *Accounting Review*, Forthcoming Harvard Business School Finance Working Paper No. 09-032.

- Barth, Mary E., Beaver, William H., & Landsman, Wayne R. 2000. *The Relevance of Value Relevance Research*. Thesis. Graduate School of Business Stanford University.
2001. The Relevance of the Value Relevance Literature For Financial Accounting Standard Setting: Another View. *Journal of Accounting and Economics* Volume 31, Issues 1–3, Pages 77-104.
2012. Are IFRS-based and US GAAP-based accounting amounts comparable?. *Journal of Accounting and Economics* 54 (2012) 68–93.
- Brigham, Eugene F., & Houston, Joel F. 2007. *Fundamentals of Financial Management, Eleventh Edition*. Thomson South-Western.
- Chaibi, Hasna. 2016. Value Relevance Of R&D Expenditure Before And After IFRS Mandatory Implementation: Evidence From France. *International Journal of Management Sciences and Business Research, Vol. 5, Issue 8*.
- Drake, Pamela Peterson., & Fabozzi, Frank J. 2010. *The Basics Of Finance An Introduction To Financial Markets, Business Finance, And Portfolio Management*. John Wiley & Sons, Inc., Hoboken, New Jersey.
- Donaldson, Thomas., & Preston, Lee E. 1995. The stakeholder theory of the corporation: concepts, evidence, and implications. *Academy Of Management Review* Vol. 20 No. 1, 65-91.
- Francis, Jennifer., & Schipper, Katherine. 1999. Have Financial Statements Lost Their Relevance?. *Journal of Accounting Research* Vol. 37 No. 2.
- Fabozzi, Frank J. 2008. *Handbook Of Finance Volume I Financial Markets And Instruments*. John Wiley & Sons, Inc., Hoboken, New Jersey.
- Field, Andy. 2009. *Discovering Statistics Using SPSS Third Edition*. SAGE Publications Ltd.
- Financial Accounting Standards Board. 2006. *Conceptual Framework for Financial Reporting: Objective of Financial Reporting and Qualitative Characteristics of Decision-Useful Financial Reporting Information*. Financial Accounting Standards Board.
2008. *Statement of Financial Accounting Concepts No. 2. Qualitative Characteristics of Accounting Information*. Financial Accounting Standards Board.
2008. *Statement of Financial Accounting Concepts No. 5: Recognition and Measurement in Financial Statements of Business Enterprises*. Financial Accounting Standards Board.
- Ghozali, Imam. 2013. *Aplikasi Analisa Multivariate dengan program IBM SPSS*. Badan penerbit Universitas Diponegoro, Semarang.
- Gitman, Lawrence J. 2003. *Principles of Managerial Finance, 10th Edition*. Pearson.
- Gujarati, Damodar N. 2004. *Basic Econometrics Fourth Edition*. The McGraw–Hill Companies.
- Hadi, Syamsul. 2006. *Metodologi Penelitian Kuantitatif Untuk Akuntansi Dan Keuangan*. Ekonisia, Yogyakarta.
- Hanifah, Nurul., Herrhyanto, Nar., & Agustina, Fitriani. 2015. Penerapan Metode Weighted Least Square Untuk Mengatasi Masalah Heteroskedastisitas Pada Analisis Regressi Linear. *Eurikamatika*, Vol.3, No.1.
- Hayati, Murni. 2016. Value Relevance Of Accounting Information Based On Psak Convergence IFRS (Manufacture Firms In Indonesia). *Jurnal Praktik Bisnis, Volume 5, Nomor 1*.
- Hidayat, Wahyu. 2015. *Analisis Perbandingan Kinerja Keuangan Sebelum Dan Sesudah Implementasi PSAK Berbasis IFRS (Studi Pada Perusahaan Manufaktur Yang Terdaftar di BEI)*. Thesis. Fakultas Ekonomi Dan Bisnis Universitas Lampung Bandarlampung.
- Hitz, Joerg Markus. 2005. The Decision Usefulness of Fair Value Accounting – A Theoretical Perspective. *European Accounting Review, 2007, vol. 16, issue 2, pages 323-362*.
- Holthausen, Robert W., & Watts, Ross L. 2001. The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics* 31, 3–75.
- Ikatan Akuntansi Indonesia. 2008. Exposure Draft Pernyataan Standar Akuntansi Keuangan 14 (Revisi 2008). Dewan Standar Akuntansi Keuangan-IAI.
2009. Exposure Draft Pernyataan Standar Akuntansi Keuangan 1 (Revisi 2009). Dewan Standar Akuntansi Keuangan-IAI.
2009. Exposure Draft Pernyataan Standar Akuntansi Keuangan 19 (Revisi 2009). Dewan Standar Akuntansi Keuangan-IAI.
2009. Exposure Draft Pernyataan Standar Akuntansi Keuangan 57 (Revisi 2009). Dewan Standar Akuntansi Keuangan-IAI.

2010. Exposure Draft Pernyataan Standar Akuntansi Keuangan 56 (Revisi 2010). Dewan Standar Akuntansi Keuangan-IAI.
2011. Exposure Draft Pernyataan Standar Akuntansi Keuangan 33 (Revisi 2011). Dewan Standar Akuntansi Keuangan-IAI.
2013. Exposure Draft Pernyataan Standar Akuntansi Keuangan 1. Dewan Standar Akuntansi Keuangan-IAI.
2014. Pernyataan Pencabutan Standar Akuntansi Keuangan 12. Dewan Standar Akuntansi Keuangan-IAI.
2014. Interpretasi Standar Akuntansi Keuangan 29. Dewan Standar Akuntansi Keuangan-IAI.
2015. Exposure Draft Pernyataan Standar Akuntansi Keuangan 16. Dewan Standar Akuntansi Keuangan-IAI.
2016. Exposure Draft Kerangka Konseptual. Dewan Standar Akuntansi Keuangan-IAI.
- International Financial Reporting Standards. 2011. *IFRIC Interpretation 20 Stripping Costs in the Production Phase of a Surface Mine*. International Financial Reporting Standards Foundation.
2012. *LAS 33 Earning per Share*. International Financial Reporting Standards Foundation.
- Januarti, Indira. 2004. Pendekatan Dan Kritik Teori Akuntansi Positif. *Jurnal Akuntansi & Auditing I 83 Volume 01 No. 01*.
- Jensen, Michael C. 2002. Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Business Ethics Quarterly Vol. 12, No. 2 pp. 235-256*.
- Karampinis, Nikolaos I., & Hevas, Dimosthenis L. 2009. Mandating IFRS in an Unfavorable Environment: The Greek Experience. *The International Journal of Accounting 46 (2011) 304-332*.
- Karğın, Sibel. 2013. The Impact Of IFRS On The Value Relevance Of Accounting Information: Evidence From Turkish Firms. *International Journal of Economics and Finance; Vol. 5, No. 4*.
- Kemp, Michael. 2012. Book Value Per Share. *Equity Volume 26, Issue 2*.
- Martini, Tri. 2014. *Pengaruh Konvergensi IFRS Terhadap Relevansi Nilai Informasi Akuntansi Di Perusahaan Manufaktur Yang Terdaftar Di BEI*. Thesis. Universitas Bengkulu.
- Mason, Robert D., & Lind, Douglas A. 1996. *Statistical Techniques In Business And Economics*. Irwin Inc.
- Maziyya, Putu Ayu., Sukarsa, I Komang Gde., & Asih, Ni Made. 2015. Mengatasi Heteroskedastisitas Pada Regresi Dengan Menggunakan Weighted Least Square. *E-Jurnal Matematika Vol. 4 (1), pp. 20-25*.
- Mousa, Gehan A., & Desoky, Abdelmohsen M. 2014. The Value Relevance of International Financial Reporting Standards (IFRS): The Case of the GCC Countries. *Journal of Accounting, Finance and Economics Vol. 4. No. 2. Pp. 16 - 28*.
- Ohlson, James A. 1995. Earnings, Book Values, And Dividends In Equity Valuation. *Contemporary Accounting Research; 11, 2*.
- Oktavianti, Santi. 2015. *Pengaruh Ukuran Perusahaan, Modal Kerja, Arus Kas Terhadap Likuiditas (Studi Pada Perusahaan Manufaktur Sektor Industri Barang Konsumsi Yang Terdaftar Di Bursa Efek Indonesia Periode 2009-2013)*. Thesis. Fakultas Ekonomi Universitas Widyatama.
- Pearce, Douglas K. 1983. Stock Price and The Economy. *Economic Review*.
- Pinasti, Margani. 2004. *Faktor-faktor yang menjelaskan variasi relevansi nilai informasi akuntansi: pengujian hipotesis informasi alternatif*. Jurnal. Fakultas Ekonomika Dan Bisnis Universitas Gajah Mada. Yogyakarta.
2012. *Interaksi Perspektif Informasi Dan Perspektif Pengukuran Dalam Pendekatan Kegunaan-Keputusan Informasi Akuntansi*. Jurnal. Universitas Jenderal Soedirman.
- Puspitaningtyas, Zarah. 2012. Relevansi Nilai Informasi Akuntansi Dan Manfaatnya Bagi Investor. *Jurnal Ekonomi dan Keuangan Akreditasi No. 110*.
2013. *Perilaku investor dalam pengambilan keputusan investasi di pasar modal*. Jurnal. Universitas Jember.
- Rahmawati, Lusiana., & Murtini, Henny. 2015. Kualitas Informasi Akuntansi Pra Dan Pasca Adopsi IFRS. *Accounting Analysis Journal 4 (2)*.
- Rotblut, Charles. 2010. The Importance of Book Value. *AII Journal*.
- Scott, William R. 2015. *Financial Accounting Theory, 7th Edition*. University of Waterloo. Pearson.
- Sinarto, Jonathan Reiner., & Christiawan, Julius Jogi. 2014. Pengaruh Penerapan IFRS Terhadap Relevansi Nilai Laba Laporan Keuangan. *Tax & Accounting Review, Vol. 4, No.1*.
- Suprihatin, Siti. 2013. Dampak konvergensi international financial reporting standards terhadap nilai relevan informasi akuntansi. *Jurnal Akuntansi dan Keuangan Indonesia Volume 10 Nomor 2 Hal. 171-183*.
- Suwito, Edy., & Herawaty, Arleen. 2005. Analisis Pengaruh Karakteristik Perusahaan Terhadap Tindakan Perataan Laba Yang Dilakukan Oleh Perusahaan Yang Terdaftar Di Bursa Efek Jakarta. *SNA VIII Sob*.

- Walker, Martin. 2012. *Clean Surplus Accounting Models and Market based Accounting Research: A Review*. University of Manchester.
- Yhlas, Sovbetov. 2015. How IFRS Affects Value Relevance and Key Financial Indicators? Evidence from the UK. *International Review Of Accounting, Banking, and Finance* Volume 7, No. 1.
- Zikmund, William G. 2010. *Business research methods*. South-Western/Cengage Learning.

**Media:**

- Informasi Kurs Transaksi BI*. <http://www.bi.go.id/id/moneter/informasi-kurs/transaksi-bi/Default.aspx>, (accessed on May 21, 2017).
- Rembeth, Daniel., & Asnap, Farhana. 2015. *40 perusahaan tambang terbesar rugi US\$ 27 miliar*. <http://www.pwc.com/id/en/media-centre/pwc-in-news/2016/indonesian/40-perusahaan-tambang-terbesar-rugi-us--27-miliar.html>, (accessed on April, 12, 2017).
2015. *Sebagai Tahun Terburuk Bagi Sektor Pertambangan*. <http://www.pwc.com/id/en/media-centre/pwc-in-news/2016/indonesian/pwc---tahun-2015-sebagai-tahun-terburuk-bagi-sektor-pertambangan.html>. (accessed on April, 12, 2017).
- Sukimo. 2016. *EMITEN BATU BARA: 20 Saham Tambang Paling Melejit & Tertekan*. <http://market.bisnis.com/read/20160418/190/538808/emiten-batu-bara-20-saham-tambang-paling-melejit-tertekan-2016>. (accessed on August 28, 2017).
- Winati, Rini. 2015. *CHART OF THE DAY: 2015, Sektor Tambang Turun Tajam. BYAN Malah Naik 18%*. <http://www.bareksa.com/id/text/2015/12/29/chart-of-the-day-2015-sektor-tambang-turun-tajam-byan-malah-naik-18/12298/news>, (accessed on April, 12, 2017).