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Value Relevance of Accounting Information: Evidence from Indonesia

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Abstract: This research aims to investigate the quality of accounting information on the period before and after the full convergence IFRS in Indonesia. This study employs value relevance as the proxy of the quality of accounting information. Hence, the hypothesis of the research is whether the full convergence of IFRS improves the value relevance in Indonesia. An empirical analysis carried out on a sample of 247 firms with 2 years observations for first analysis and 4 years observations for second part of analysis. Ohlson price model has been employed to tackle the analysis. Results affirm the relative value relevance on earnings increase but not on book value. Then, there is overall decrease in the value relevance under IFRS.

Key words: Value relevance, IFRS convergence to SFAS, Indonesia-GAAP, empirical, analysis

INTRODUCTION

It is believed that financial statement is one of the sources of information that produce financial information to interested parties. Therefore, a standard that can result accurate information are expected from financial reporting. Following the convergence of International Financial Reporting Standards (IFRS) to Indonesian generally accepted accounting principles (PSAK), the convergence of new standard is expected to produce a qualified financial reporting. However, it is on-going debate on whether the convergence of IFRS will enhance the information quality that also impacting to value of the firms. Value relevance is claimed to be the study to assess whether accounting information related to how investors valuing firm's equity (Barth *et al*., 2001; Francis and chipper, 1999). There are extensive studies on value relevance conducted in developed countries and found that accounting information has association with value relevant such as: Collins *et al*. (1997) research conducted on US companies (King and Langli, 1998) on Germany, Norway and UK Ali and Hwang for Anglo-Saxon countries (Arce and Mora, 2002) for Europe; Black and White (2003) on Germany, Japan and the US. Besides, numerous researches also performed in emerging markets but with various results. Suadiye (2012) and Chen *et al*. (2001) found that accounting standard has improved the value relevance while contrary to those result (Pervan and Bartuloviæ, 2014; Cahyonowati and Ratmono, 2012).

This inconsistency results might have been impacted by various reasons. Karampinis and Hevas (2011), Karampinis and Hevas (2011), Daske *et al*. (2008), Clarkson *et al*. (2011) and Barth *et al*. (2008) stated that code vs common law model is considered to be the cause of the inconsistency. Code law countries follow the stakeholder model while common law countries follow the shareholder models. Where accounting standards is purely initiated by state for code law whilst in common law countries, the standard is promoted by professional bodies. As well, several characteristics in code law countries, the banking system plays the major source of external finance compare to stock exchange. Also, accounting standard is imposed by government over legislation and public disclosure has not played an important role1 (Karampinis and Hevas, 2011). Meanwhile, common law countries have the opposite characteristics to the code law. Added also by La Porta *et al*. (1998) that code law countries has weak monitoring and protection mechanisms for investors that can lead to an extensive earnings management compare to common law countries. Indonesia is included as code law countries which recently is converging its accounting standard based on IFRS. The convergence occurred as a result of an agreement of Indonesia as a part of G-20 forum member. IFRS has been converged to Indonesian Generally Accepted Accounting Principles (GAAP) gradually since 2008 and started to be implemented fully in 2012. It has been on debate whether the convergence standard will bring better accounting information. Consequently, several studies about value relevance due to accounting standard have been conducted in Indonesia for example, Cahyonowati and Ratmono (2012), Arum (2013) and Indrawati (2015). Compare to those studies, this research will develop more samples and models as well as the year of observation.

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Literature review: Financial information stated in financial statements is the way for companies to communicate to their internal and external users. Therefore, it is required to have regulations and standards to ensure financial reports reliability. The information should be presented completely, neutral and free from error. IASB aims to develop a conceptual framework as the basis for the issuance of accounting standards which will be useful and consistent over time (Kieso and Warfield, 2014) Indonesia decided to adopt IFRS. DSAK-IAI (Indonesian Institute of Accountants) declared that in 2012 the international accounting standards (IFRS) implemented full adoption in 2012. DSAK-IAI is the one responsible to adopt IFRS into Indonesia's Statement of Financial Accounting Standards (SFAS). Thus, Indonesia will have the similar effect to value of the firms like other countries after the adoption of IFRS.

Based on previous studies, there are several reaction and impact on the adoption of IFRS. The adoption of IFRS in European countries had positive reaction from firms with lower quality pre-adoption information, firms with higher pre-adoption information asymmetry and firms with high-quality pre-adoption information. However, the negative reaction came from firms domiciled in code law countries (Armstrong *et al*., 2010). The mandatory adoption of IFRS in the European Union (EU) also significantly reduces the cost of equity for mandatory adopters (Li, 2010). The result of a study in Australia was the accounting quality has improved, the occurrence of earnings management has reduced and the timeliness of loss recognition has improved after adopting IFRS. Another finding was the value relevance of financial statement information also has improved, especially for non-financial firms (Chua *et al*., 2012).

IFRS also is believed to increase the value relevance of the financial report. Some studies have examined the valuation relevance of book value and earnings for early adopters of IFRS. For example, Chalmers *et al*. (2011), investigate the impact of adoption of IFRS on value relevance of accounting information for firms listed on the Australian securities exchange. The result was earnings become more value-relevant. Furthermore, earnings also become more persistent around IFRS adoption (Chalmers *et al*., 2011). Bartov *et al*. (2005) examine the effects of IAS versus German GAAP to 37 IAS adopters using a linear pricing model. The result is there was an improvement in the value relevance of earnings after firms adopt IFRS. Based on these previous studies of value relevance on IFRS convergence, this study will examine the improvement of value relevance on IFRS convergence in Indonesia.

Hypothesis development: Extensive research has been done related to the impact of changes in accounting standards to value relevance with varied results. Barth *et al*. (2001) asserted that IFRS could improve the value relevance of accounting information since IFRS recognizes fair value. This study also confirmed by Kargin (2013). Conversely, Karampinis and Hevas (2011), La Porta *et al*. (1998) verified that IFRS does not improve the value relevance of accounting information. This study supported by Niskanen *et al*. (2000) attained that reconciliation between Finnish GAAP and IFRS does not confirm value relevance. Similar results were also obtained in German (Hung and Subramanyam, 2007). Besides, several studies showed conflicting results, for instance (Stergios *et al*., 2005). Who studied 40 greek industrial firms when adopting the IFRS and confirmed that the value relevance of book value is greater than earnings. Similar result also occurred in German companies (Bartov *et al*., 2005). Meanwhile, Paglietti (2009) found that the value relevance of earnings is higher that book value after IFRS adoption. Other research conducted by Devalle *et al*. (2010) examined the value relevance of accounting information after the implementation of IFRS. They discovered that in Germany, France and the UK, the value relevance on earnings has increased but decreasing on book value to all sample countries except the UK. Given the literatures above, there is one hypothesis can be derived:

- H_1: does full convergence of IFRS improve the value relevance of accounting information?

MATERIALS AND METHODS

Sample and model

Sample selection: The sample covers all listed firm in Indonesian Stock Exchange (IDX) from 2010-2013, each with sufficient data to assess the hypothesis. Firms which not actively traded consistently from 2010-2013 (113) were excluded as were firms (30) with negative book value. Fifteen firms with financial year did not end on December were excluded as were seventeen firms which did not submit complete financial report. Sixteen firms with negative earnings also were excluded from the sample. It also excludes further 16 firms to reduce the effect of outliers on the findings. Table 1 recapitulates the sample based on criteria which results in 247 of samples.

Indonesia has its own accounting standard recognized as Statement of Financial Accounting Standard (SFAS). Previously, Indonesian firms were required to comply with SFAS that relied on US-GAAP. Then, since 2008 Indonesia decided to adopt IFRS into its

Table 1: Sampling

Variables	Values
Initial sample	525
Less	
Firms were not actively traded	113
Firms with negative book value	30
Firm with financial year not ending on December	15
Firms with no complete financial report	17
Firms with negative earnings	87
Outlier data	16
Final sample	247

SFAS. Accordingly, convergence phase started since 2008 till 2011 gradually and fully converged in 2012. Therefore, to examine the impact of value relevance before and after the full convergence of IFRS, we use 2011 as Pre-IFRS and 2012 as the Post-IFRS period in the first analysis to capture the real effect of convergence. For the second analysis, we use 4 years of observation from 2010-2013.

Model: This study employs two part of analysis which the first part uses regression Model 1-3 while second part will use Model 4. To assess the whether the convergence of IFRS improved the value relevance of earnings and book value Ohlson (1995) model has been the original model for this study:

$$P_{t+1} = \alpha_0 + \beta 1EPS_{jt} + \beta_2 BV_{jt} + \varepsilon$$

The adjusted R^2 is the explanatory power of independent variables. By adding several control variables such as size, leverage and type of industry, the Model 1 for this study is as follows:

$$P_{n+1} = \alpha_0 + \beta_1 EPS_{jt} + \beta_2 BV_{jt} + \beta_3 SIZE_{jt} + \beta_4 LEV_{jt} + \beta_5 INDY + \varepsilon_{jt} \quad (1)$$

Where:

P_{n+1} = The price of common stock j on t (31 March)

EPS_{jt} = The earning per common share of firm j in year t

Bv_{jt} = The book Value per share of firm j in year t

$SIZE_{jt}$ = The size of firm j in year t

LEV_{jt} = The leverage of firm j in year t

INDY = The nominal variable from 1-9 specifying industries

ε_{jt} = The disturbance idiom

As explained above, the model is the function of two variables; the earnings and book value. To examine the contribution of each variable to value relevance, the model has been disaggregated into Model 2 and 3. Similar model also has been used by Collins *et al.* (1997) and extended by Keener (2011).

$$P_t = \alpha_0 + \beta_1 EPS_{jt} + \beta_2 SIZE_{jt} + \beta_3 LEV_{jt} + \beta_4 INDY + \varepsilon_{jt} \quad (2)$$

$$P_t = \alpha_0 + \beta_1 BV_{jt} + \beta_2 SIZE_{jt} + \beta_3 LEV_{jt} + \beta_4 INDY + \varepsilon_{jt} \quad (3)$$

Also, to see the influence of IFRS convergence on value relevance, this study has used modified Ohlson Model by adding IFRS convergence as dummy variable:

$$P_{n+1} = \alpha_0 + \beta_1 D_{jt} + \beta_2 EPS_{jt} + \beta_3 BV_{jt} + \beta_4 D\_EPS_{jt} + \beta_5 D\_BV_{jt} + \beta_6 SIZE_{jt} + \beta_7 LEV_{jt} + \beta_8 INDY + \varepsilon_{jt} \quad (4)$$

Where:

D_{jt} = The dummy variable for IFRS where '0' for the period pre-IFRS and '1' for the period post-IFRS

D_EPS_{jt} = The interaction variable between dummy and EPS

D_BV_{jt} = The interaction variable between dummy and BV

RESULTS AND DISCUSSION

Descriptive statistics: There are 3 data set has been run for this study which 2 data sets are used for 2 years regression from 2011-2012 and one data set (consists of 4 years data) is used for panel data regression. Descriptive statistics for all data set shows the distribution of raw data is not normal. This is shown by the mean is smaller than the standard deviation. Therefore, to obtain the normal data, the data were transformed into natural logarithm (Ln).

Regression results: There will be 4 models employed in this study but there are only 2 parts of analysis. First part, it will analyze the impact of IFRS convergence to combined value relevance using regression Model 1 and relative value relevance of earnings and book value using regression Model 2 and 3, respectively. In the second part, it will analyze the effect of IFRS on value relevance by examining the coefficient of interaction variables in Model 4.

Analysis I: It is examined the influence of IFRS full convergence to combined value relevance by comparing R^2 from Model 1. The result on Tabel 2 shows that during the 2 years of observation earnings and book value influence significantly the market value before and after the IFRS full convergence so also occurs in control

Tabel 2: Regression result of Model 1

Independent variables	Pre-IFRS 2011 Coeff.	Pre-IFRS 2011 p-values	Post-IFRS 2012 Coeff.	Post-IFRS 2012 p-values
Intercept	1.959	0.000	4.059	0.000
EPS	0.433	0.000*	0.569	0.000*
BV	0.271	0.002*	-0.159	0.000*
SIZE	0.151	0.000*	0.202	0.000*
LEV	-0.000	0.966	-0.456	0.000*
INDY	0.010	0.686	0.005	0.850

N: 247.000; Adjusted R^2: 0.607; 0.592; F-test: 76.855; 0.000*; 72.312; 0.000; **Significance at the level 1% level (two-tailed); $P_{n+1} = \alpha_0+\beta_1 EPS_{jt}+\beta_2 BV_{jt}+\beta_3 SIZE_{jt}+\beta_4 LEV_{jt}+\beta_5 INDY+\varepsilon_{jt}$

Tabel 3: Summary of adjusted R^2 from Model 2 and 3

Adjusted R^2	Pre-IFRS (2011)	Post-IFRS (2012)
R^2 total	0.607	0.592
R^2 EPS	0.592	0.570
R^2 BV	0.532	0.220

Tabel 4: Regression result of Model 4

Independent variables	Coefficient	t-statistic	p-values
Intercept	1.96	6.68	0.000
D (Dummy)	1.36	4.03	0.000*
EPS	0.43	9.39	0.000*
BV	0.26	4.16	0.000*
D_EPS	0.16	3.09	0.002*
D_BV	-0.31	-4.27	0.000*
SIZE	0.17	9.86	0.000*
LEV	0.00	-0.11	0.916
INDY	-0.01	-0.68	0.492

N: 988; Adjusted R^2: 0.590; F-test: 178.843; 0.000; **Significance at the level 1% level (two-tailed); $P_{n+1} = \alpha_0+\beta_1 D_{jt}+\beta_2 EPS_{jt}+\beta_3 BV_{jt}+\beta_4 D\_EPS_{jt}+\beta_5 D\_BV_{jt}+\beta_6 SIZE_{jt}+\beta_7 LEV_{jt}+\beta_8 INDY+\varepsilon_{jt}$

variables of size, leverage and industry type. It is also discloses that IFRS convergence reduces the value relevance of accounting information. It can be seen that pre-IFRS R^2 = 60.7% are higher than post-IFRS R^2 = 59.2%. This result is consistent with the findings of Khanagha, (2011) that stated there is a decrease on value relevance after the IFRS adoption in United Arab Emirates. As well, with the findings of Cahyonowati and Ratmono (2012) discovered that the implementation of IFRS-accounting based standards in Indonesia have not been able to improve the value relevance of accounting information. Moreover, Callao *et al*. (2007) is closed that there is no significant improvement on value relevance after the IFRS adoption and also revealed that improvement might be obtained in the medium to long-term.

The findings on Table 2 also notes that coefficient of earnings post-IFRS (0.569) is higher compare to pre-IFRS (0.433) while coefficient of book value on post-IFRS (-0.159) is lower compare to pre-IFRS (0.271). This figures indicates that there is an improvement value relevance in earnings and opposite result to value relevance of book value. This result is similar to the findings Cahyonowati and Ratmono (2012) that improvement on value relevant only occurs on earnings but not on book value. Also, alike with the study of (Devalle *et al*., 2010) who found that the value relevance of earnings increases after the IFRS adoption in Germany, United Kingdom and France while the value relevance of book value decreases (excluding United Kingdom). To observe more the relative value relevance of earnings and book value, regression Model 2 and 3 have been run each year from 2011-2012 to obtain the R^2 EPS and R^2 BV (Tabel 3).

The findings on Table 3 reveals that there is a decreasing trend on value relevance where the decrease on value relevant is more on Book value (pre-IFRS the R^2 is 53.2% while post-IFRS the R^2 is 22%) than on earnings (pre-IFRS the R^2 is 59.2% while post-IFRS the R^2 is 57%).

Analysis II: Second analysis employed to observe the influence of IFRS convergence to the value relevance. Regression Model 4 has been run for 4 years of observation using the panel data. The regression 4 is the modified model of Ohlson price model by using the dummy variable of IFRS convergence and also two interaction variables. The model and result are shown on Tabel 4.

Results shown on Table 4 indicate that the stock price connection with EPS (t-statistic = 9.39; p = 0.000) and BV (t-statistic = 4.16; p = 0.000) remain significant. Regarding the value relevance due to IFRS convergence that represented by Dummy variable (t-statistic = 4.03; p = 0.000) and interaction variables D_EPS (t-statistic = 3.09; p = 0.002) and D_BV (t-statistic = -4.27; p = 0.000) are found significantly value relevant.

From the interaction variable, it can be seen that D_EPS has positive coefficient that presents an increase in value relevance of accounting information. While, D_BV has negative coefficient means decline in value relevance. The full convergence of IFRS improves the earnings value relevant, yet it declines the value relevance of book value. Due to positive coefficient on earnings is lower than negative coefficient on book value; the total value relevance is declined. This result is consistent to analysis 1 and similar to the study of Cahyonowati and Ratmono (2012) showed that there is no increase on overall value relevance of accounting information after the period of the adoption of IFRS. The result also stated that increased value relevance only occurs on earnings. Also, study by Karampinis and Hevas (2011) found that IFRS adoption in Greece only have minor improvement in value relevance.

CONCLUSION

This study aims to examine whether IFRS full convergence in Indonesia improves the value relevance of accounting information. The study is separated in two part of analysis. The first result shows that IFRS convergence reduces the combined value relevance of accounting information. Besides it is also found that the value relevance on earnings increases but not on book value. The second analysis has confirmed the first result; the overall value relevance of accounting information has declined since the increase in value relevance of earnings is lower than decline in the value relevance of book value.

The result might occur since Indonesia is including in countries with continental corporate governance where the capital markets are not well-developed yet and still banking oriented. Different to Anglo-Saxon countries which is heavily rely on the capital market so accounting information is crucial for investor. This result is in line with research of Ali and Hwang found that value relevance of accounting information is inferior to countries with continental model of corporate governance.

The findings also support the argument that code law countries (including Indonesia) with the lack of law enforcement, the weak investor protection, concentrated ownership, funding banking oriented, the IFRS convergence might not be able to improve the value relevance of accounting information (Karampinis and Hevas, 2011).

REFERENCES

Arce, M. and A. Mora, 2002. Empirical evidence of the effect of European accounting differences on the stock market valuation of earnings and book value. Eur. Accounting Rev., 11: 573-599.

Armstrong, C.S., M.E. Barth, A.D. Jagolinzer and E.J. Riedl, 2010. Market reaction to the adoption of IFRS in Europe. Accounting Rev., 85: 31-61.

Arum, E.D.P., 2013. Implementation of International Financial Reporting Standards (IFRS) and the quality of financial statement information in Indonesia. Res. J. Finance Accounting, 4: 200-209.

Barth, M.E., W.H. Beaver and W.R. Landsman, 2001. The relevance of the value relevance literature for financial accounting standard setting: Another view. J. Account. Econ., 31: 77-104.

Barth, M.E., W.R. Landsman and M.H. Lang, 2008. International accounting standards and accounting quality. J. Accounting Res., 46: 467-498.

Bartov, E., S.R. Goldberg and M. Kim, 2005. Comparative value relevance among German, US and international accounting standards: A German stock market perspective. J. Accounting Auditing Finance, 20: 95-119.

Black, E.L. and J.J. White, 2003. An international comparison of income statement and balance sheet information: Germany, Japan and the US. Eur. Accounting Rev., 12: 29-46.

Cahyonowati, N. and D. Ratmono, 2012. Adoption of IFRS and accounting information value relevance. J. Accounting Finance, 14: 105-115.

Callao, S., J.I. Jarne and J.A. Lainez, 2007. Adoption of IFRS in spain: Effect on the comparability and relevance of financial reporting. J. Int. Accounting, Auditing Taxation, 16: 148-178.

Chalmers, K., G. Clinch and J.M. Godfrey, 2011. Changes in value relevance of accounting information upon IFRS adoption: Evidence from Australia. Aust. J. Manage., 36: 151-173.

Chen, C.J.P., S. Chen and X. Su, 2001. Is accounting information value-relevant in the emerging Chinese stock market? J. Int. Accounting Auditing Taxation, 10: 1-22.

Chua, Y.L., C.S. Cheong and G. Gould, 2012. The impact of mandatory IFRS adoption on accounting quality: Evidence from Australia. J. Int. Accounting Res., 11: 119-146.

Clarkson, P., J.D. Hanna, G.D. Richardson and R. Thompson, 2011. The impact of IFRS adoption on the value relevance of book value and earnings. J. Contemp. Accounting Econ., 7: 1-17.

Collins, D.W., E.L. Maydew and I.S. Weiss, 1997. Changes in the value-relevance of earnings and book values over the past 40 years. J. Accounting Econ., 24: 39-67.

Daske, H., L. Hail, C. Leuz and R. Verdi, 2008. Mandatory IFRS reporting around the world: Early evidence on the economic consequences. J. Acc. Res., 46: 1085-1142.

Devalle, A., E. Onali and R. Magarini, 2010. Assessing the value relevance of accounting data after the introduction of IFRS in Europe. J. Int. Financial Manage. Accounting, 21: 85-119.

Francis, J. and K. Schipper, 1999. Have financial statements lost their relevance?. J. Accounting Res., 37: 319-352.

Hung, M. and K.R. Subramanyam, 2007. Financial statement effects of adopting international accounting standards: The case of Germany. Rev. Accounting Stud., 12: 623-657.

Indrawati, N., 2015. The Impact of convergence with international finanancial reporting standards on accounting quality in Indonesia. Res. J. Finance Accounting, 6: 162-170.

Karampinis, N.I. and D.L. Hevas, 2011. Mandating IFRS in an unfavorable environment: The Greek experience. Int. J. Accounting, 46: 304-332.

Kargin, S., 2013. The impact of IFRS on the value relevance of accounting information: Evidence from Turkish firms. Int. J. Econ. Finance, 5: 71-80.

Keener, M.H., 2011. The relative value relevance of earnings and book value across industries. J. Finance Accountancy, 6: 1-19.

Khanagha, J.B., 2011. Value relevance of accounting information in the United Arab Emirates. Int. J. Econ. Financial Issues, 1: 33-45.

Kieso, W. and Warfield, 2014. Intermediate Accounting: IFRS Edition. 2nd Edn., John Wiley & Sons, New York, USA., ISBN: 978-1-118-44396-5,.

King, R.D. and J.C. Langli, 1998. Accounting diversity and firm valuation. J. Int. Accounting, 33: 529-567.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R.W. Vishny, 1998. Law and finance. J. Political Econ., 106: 1113-1155.

Li, S., 2010. Does mandatory adoption of international financial reporting standards in the European Union reduce the cost of equity capital?. Accounting Rev., 85: 607-636.

Niskanen, J., J. Kinnunen and E. Kasanen, 2000. The value relevance of IAS reconciliation components: Empirical evidence from Finland. J. Accounting Public Policy, 19: 119-137.

Ohlson, J.A., 1995. Earnings, book values and dividends in equity valuation. Contemporary Account. Res., 11: 661-687.

Paglietti, P., 2009. Investigating the effects of the EU mandatory adoption of IFRS on accounting quality: Evidence from Italy. Int. J. Bus. Manage., 4: 3-18.

Pervan, I. and M. Bartulovic, 2014. Value relevance of accounting information: Evidence from South Eastern European countries. Econ. Res., 27: 181-190.

Stergios, A., V. Athanasios and D. Nikolaos, 2005. Financial statement effects of adopting international accounting standards: The case of Greece. Ph.D Thesis, University of Macedonia, Thessaloniki, Greece. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1829348.

Suadiye, G., 2012. Value of the book value and earnings under the local GAAP and IFRS: Evidence from Turkey comparison of the profit and equity figures prepared according to local accounting standards and IFRS. Aegean Acad. View, 12: 301-310.