Value Relevance of Accounting Information During IFRS Convergence Process In Indonesia

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Abstract: The purpose of this study is to examine the value relevance of accounting information in Indonesian market during the IFRS convergence process. Specifically, we investigate whether value relevance improves after significant revisions of standards during the period from 2005 to 2012. Using the price model and return model, we examine the accounting information value relevance of Indonesia listed firms. As predicted, we find that the value relevance of accounting information increases after the accounting standards change. We further document some determinants of value relevance, such as the less informativeness of negative earnings and the more value relevance both of large firms and firms with a higher level of good corporate governance before and after accounting standard change. Finally, these findings contribute to the ongoing debate of IFRS convergence effect on accounting quality, especially the case in emerging markets.

Keywords: IFRS convergence, value relevance, Indonesia


Kata Kunci: konvergensi IFRS, relevansi nilai, Indonesia

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1. Introduction

International accounting standards have been affecting Indonesian companies since 1994 when DSAK has committed to harmonizing PSAK to international accounting standards. As such, most PSAK issued since then have been based on international accounting standards. Although the converging process was slow in the first decade, DSAK takes a serious effort to expedite the convergence process in 2009. Some new revisions are made, and some new standards are issued during 2009 and 2010. However, the target to fully IFRS adoption in 2012 has not been achieved. Some major and minor differences between IFRS and PSAK still exist. The convergence process still left two PSAK that have not been adopted yet, including IFRS 1 and IAS 41.

According to Indonesian Law No. 40 (2007), corporate entities are required to prepare annual financial statements following the accounting standards issued by the professional accounting organization recognized by the Indonesian government. Although there is no formal legal backing to IAI as a professional accounting body, the DSAK-IAI acts as the de-facto standard-setter in the country. Some regulatory agencies, including Bappepam-LK (the Security Commission), Indonesia Stock Exchange, and Bank Indonesia (the Central Bank) are responsible for ensuring the compliance with PSAK.

Report on The Observance of Standards and Codes (ROSC) Indonesia (2010) states that the in-country stakeholders view that the institutional framework of corporate financial reporting in Indonesia has improved over the past ten years. However, many observers concern about the consistency of accounting policies and practices from one period to another, and the comparability of financial information from one entity to another in a similar business or sector. Despite there are some compliance weaknesses, the report mentions that investors in this country tend to rely more on the information available in published financial statements audited by the most significant four accounting firms in the country.

The goal of establishing international accounting standards (IAS/IFRS) is to develop an internationally acceptable set of high financial reporting standards.
However, there has been considerable debate over the value relevance of accounting information prepared under IAS/IFRS. Barth et al. (2001) show that firms with high-quality accounting have a stronger association between stock prices and earnings and book value because higher earnings quality better reflects a firm’s economic condition. Also, Barth et al. (2008) also find the accounting standards that reduce earnings management behavior result in high-value relevance accounting earnings.

However, prior studies on the value relevance of accounting information under international standards show conflicting evidence. Some studies find that accounting information under IAS/IFRS is more value relevance (Barth et al., 2008; Paglietti, 2009; Liu et al., 2011; Samarasekera et al., 2012; Alali and Foote, 2012; Widodo Lo, 2012; and Wan Ismail et al., 2013), while other studies find no improvement in value relevance after IAS/IFRS adoption (Paananen and Lin, 2009; Dobija and Klimczak, 2010; Aubert and Grutnitski, 2011; and Tsalavoutas et al., 2011).

Studies on the relevance of IFRS adoption in emerging market become more popular in the recent years, especially value relevance of accounting information prepared under IFRS-based standards. Liu et al. (2011) argue that examining the value relevance of accounting information under IFRS in an emerging market become interesting because investors in emerging markets have minimal information available. Widodo Lo (2012) investigates the value relevance of accounting information under IFRS transition in Indonesia from 1994 to 2009. He finds that value relevance of earnings and equity book values is higher in the period of significant adoption of IAS/IFRS than the period of little IAS/IFRS adoption. IFRS convergence process in Indonesia is continuing. This continuing process has been made significant revisions of the standards since 2009.

Based on this background, it is attractive to investigate the value relevance of accounting information prepared under accounting standards during the IFRS convergence process in the Indonesian market. The primary purpose of this study is to examine whether the value relevance of accounting information increase over time during the IFRS convergence process. Different from Widodo Lo (2012), which only use price model in his analysis, this study analyzes value relevance during the IFRS
convergence process using price model and return model. By using both models, the analysis encompasses the scope of assessing value relevance into both income statement and balance sheet. Moreover, this study uses more recent data of Indonesian listed firms, which covers the period from 2005 to 2012. This study also gives other contribution by analyzing some factors that may affect the value relevance of firms financial reporting. These factors include positive vs. negative earnings, the firm`s size, and good corporate governance level.

We document empirically that the accounting information value relevance of firms listed on the Indonesia Stock Exchange increases after significant revisions of accounting standards. Also, we find evidence of some determinants effect on value relevance. We test and find that firms with negative earnings are less informative. We also find a higher level of value relevance for large firms and firms with a higher quality of good corporate governance.

The remainder of our paper is organized as follows: section 2 provides a brief overview of prior research on value relevance and IFRS adoption, and develops our hypothesis; section 3 discusses our valuation model, sample selection procedures, and presents descriptive statistics; section 4 presents results analyses and discusses our empirical findings; section 5 concludes.

2. Literature Review and Hypotheses Development

2.1 Prior Literature

Beaver (1998) and Ohlson (1999) provide formal definitions, which have similar key commonality in the definitions that is an accounting amount is deemed value relevant if it has a significant association with equity market value. The value relevance of accounting information has been tested extensively in prior studies, including accounting information prepared under international accounting standards (IAS/IFRS).

Some previous studies find that accounting information under IAS/IFRS is value relevant. Barth et al. (2008) find that firms are applying IAS from 21 countries generally evidence more value relevance of accounting amounts than do match sample
firms applying non-U.S. domestic standards. However, there is an inconsistency finding in country-specific studies. Paglietti (2009) compare the value relevance before and after IFRS mandatory adoption in Italy. He finds that value relevance increases after IFRS mandatory adoption.

Meanwhile, Paananen and Lin (2009), using a sample of Germany firms, find that value relevance has not improved after IFRS adoption. For companies listed on the Warsaw Stock Exchange, Dobija and Klimczak (2010) find positive evidence of such relevance but no improvement in the strength of the relationship over time. Clarkson et al. (2011) compare the value relevance between common law and code law countries using firms in EU countries and Australia. Their finding indicates that, upon the switch to IFRS, there is a declining in value relevance of book value per share and earnings per share of firms in common law countries. On the contrary, there is an increase in value relevance for firms in code law countries.

Prior researches in emerging countries show similar and more consistent results. Such as in China, Liu et al. (2011) find that value relevance of accounting information increase after new substantial IFRS-convergent accounting standard became mandatory. A study using firms listed on Abu Dhabi Stock Exchange also show that accounting information under IFRS is value relevant (Alali and Foote, 2012). Moreover, Wan Ismail et al. (2013) also find that earnings reported during the period after IFRS adoption in Malaysia are associated with higher value relevant. For case in the Indonesian market, Widodo Lo (2012) investigates the influence of adopting IAS/IFRS on the value relevance of accounting information from 1994 to 2009. He finds that value relevance of earnings and equity book values is higher in the period of significant adoption of IAS/IFRS than the period of little IAS/IFRS adoption.

2.2. Hypotheses Development

The purpose of this study is to examine the value relevance of accounting information during the IFRS convergence process in Indonesia. In emerging markets, generally, published financial reports are the only sources of information available for existing and potential investors to use (Alali and Foote, 2012). Based on ROSC-
Indonesia survey in 2010, investors in Indonesian market tend to rely more on the information available in published financial statements, especially that audited by the most significant four accounting firms in the country.

One of the objectives of IFRS adoption in emerging markets is to have a higher quality of accounting standards. Hence, it is expected that the new standards will improve the accounting quality of financial reporting. This is in line with the goal of IASC and IASB to develop an internationally acceptable set of high-quality financial reporting standards by issuing principle-based standards and taken steps to remove allowable accounting alternatives and to require accounting measurements that better reflect a firm`s economic position and performance (Barth et al., 2008 with reference to IASC, 1989).

Ball (2006) argues that IFRS is designed to make earnings more informative, provide more useful balance sheets, and curtail the discretion afforded managers to manipulate provisions, create hidden reserves, "smooth" earnings and hide economic losses from public view. Also, Barth et al. (2008) state that the accounting amount that better reflects a firm`s underlying economics, resulting from either principle-based standards or required accounting measurements can increase accounting quality because by doing so provides investors with information to aid them in making investment decisions.

In particular, it is expected that the implementation of IFRS-based standards will increase in value relevance of Indonesian firms` financial statements. Therefore, the primary hypothesis is stated as:

Ha: Value relevance of accounting information under substantially IFRS- convergent accounting standards increases after recent revisions of the standards.

3. Research Method

3.1. Valuation Model

In value relevance literature, there are two basic types of valuation model that have extensively used by prior studies. Price model testing how a firm`s market value relates to accounting earnings and equity book value. As seen in equation 1, based on
Ohlson (1995), the model expresses the firm value as a function of its earnings and equity book value. The other type of value relevance valuation model is the return model, which describes the relation between stock returns and accounting earnings. The value relevance of accounting information studies using returns-earnings association is motivated by the seminal work of Ball and Brown (1968). Then, Easton and Harris (1991) popularized a specific version of the annual return model including both earnings levels and earnings changes. The returned model used in this study, based on Easton and Harris (1991), is provided in equation 2.

Chen et al. (2001) discuss two advantages of price models compare to return models. When stock markets anticipate any components of accounting earnings and incorporate the anticipation in the beginning stock price, i.e., prices leading earnings, return models will bias earnings coefficients towards zero. On the other hand, Kothari and Zimmerman (1995) argue that price models yield unbiased earnings coefficients because stock prices reflect the cumulative effect of earnings information. Return models only assess the value relevance of accounting earnings, whereas price models based on Ohlson (1995) show how a firm’s market value is related to both accounting earnings and equity book value. Also, the use of the Ohlson model will expand the scope of assessing the value relevance into both income statement and balance sheet.

However, Kothari and Zimmerman (1995) argue that return models have less econometric severe problems of heteroscedasticity than price models. We can find a large number of value relevance studies use both prices and return models. Following previous studies and based on Kothari and Zimmerman suggestion, this study uses both price and return models in assessing the value relevance of accounting information.
This study estimates the price model and returns model described above to examine the hypothesis, and the results of the two models are expected to complement each other. To examine the change in the relative value relevance of accounting information under substantially IFRS-convergent accounting standards after recent revisions of the standards, this study estimates equation 1 and 2 using a subsample of the period before and after standards changes (2005 - 2008 and 2009 - 2012).

We expect the coefficients of $EE$:

$$EE_{iii}^{+}, \frac{PP_{iii-11}}{PP_{iii-11}}$$

to be positive.
and significant at a conventional level if accounting information is value relevant. If the period after the accounting standards changes (2009-2012) is more value relevant, coefficients and adjusted R-squared in the later period is higher relatively compared to the previous period. Cramer’s test (1987) is used to examine the significant differences between two R-squared.

To analyze the impact of some factors on value relevance, this study divides firms sample according to firms with positive vs. negative earnings, firm size (small and large firm), and firms with high and low corporate governance perception index, then examine whether value relevance differs due to these factors based on the results of the price model and return model. Also, the analysis also covers the impact of these factors on value relevance change between periods before and after accounting standards change.

Sample Selection and Descriptive Statistics

Data are collected from the Bloomberg Database for all of the non-financial listed companies on the Indonesia Stock Exchange from 2005 to 2012. Firms with fiscal year end other than December 31 and firms with incomplete data of any variable need in the analysis then deleted. Also, firms with negative equity book value are also removed from the sample. The selection process ends up with total observations of 2,338 firm-year for price model and 2,194 firm-year for return model. We divide the sample periods into two groups that represent the period before and after accounting standards change. The first group consists of firm-year observations from 2005 to 2008, which have 1,034 observations for price model analysis and 970 observations for return model analysis. The second group includes of firm-year observations from 2009 to 2012 with 1,304 observations and 1,224 observations for price model and return model analysis respectively.

Table 1 shows the descriptive statistics of regression variables.³ On average, firms are included in the sample are profitable, which can be seen in the mean of earnings per share and total return. Comparing the period of 2005-2008 and 2009-2012, the mean increases in all variables in the later period. The mean of closing stock
price presents an increase during the period of 2009-2012 to 2,413.33 compared to the previous period (1,144.47). The annual stock return in the later period increases almost threefold to 53.06%. The mean of earnings per share and equity book value per share also increases significantly in the period after accounting standards change.

Table 2 provides the Pearson`s correlation coefficients for variables used in the price model and return model. Panel A presents that correlations between stock price and earnings per share, stock price and equity book value per share, and earnings per share and equity book value per share are positive and significant for both periods. All of the correlation magnitudes increase in the later period. Panel B also shows significant positive correlations among variables used in return model. Higher correlation magnitudes also found in the later period, except correlation between scaled earnings and scaled change earnings.

4. Results

4.1 Price Model Result

Table 3 provides results of regressions using subsample 2005-2008 and 2009-2012 for price model. As expected, the results from the price model show that the coefficients of earnings and equity book value are positive and significant. The results of both periods show that accounting information in Indonesian market under IFRS-based standard is value relevant. However, the magnitude of equity book value coefficient is smaller than earnings coefficient. It suggests that earnings are more value relevant than equity book value. Barth et al. (1998) show the importance of earnings and equity book value as determinants of equity prices. They state that book value becomes more relevant when the financial of firm deteriorates. In our sample, there are only about 19 % of firms with negative earnings of pooled samples. So, it may explain why investors more focus on earnings rather than equity book value.

Comparing results from the period before and after standards changes, we find that the later period (2009-2012) has a higher coefficient of earnings per share. The coefficients of this variable from 2005-2008 and 2009-2012 are 4.47 and 11.368 respectively. This higher coefficient is indicating that earnings are more value relevant
in the period after the accounting standards change. The coefficient of equity book value also increases from 0.579 to 0.616. Also, the later period has significantly higher adjusted R-squared (75%) relatively compared to the previous period (69%). The result of Cramér’s test shows that the two R-squared is significantly different. Overall, this result supports the primary hypothesis of this study that value relevance of accounting information increases after accounting standards change.

4. 2 Return Model Result

From the result of return model regression, we find that earnings are value relevant in both periods. The coefficient of earnings is positive and significant, indicating that a high level of earnings is associated with a high stock return. The magnitude of this coefficient also increases significantly from 57.438 in 2005-2008 to 140.954 in 2009-2012. However, we find the insignificant coefficient of earnings changes in both periods indicating that this variable is not associated with a stock return. The coefficient of 2005-2008 and 2009-2012 of these variables are 10.88 and 6.63 respectively. This insignificant association reveals that investors do not concern about earnings surprise in both periods.

The result from the return model also shows that the later period has significantly higher adjusted R-squared, 2.1% for 2005-2008 and 8.1% for 2009-2012. This result complements the evidence found in the price model and supports the main hypothesis.

4. 3 Robustness Test

We perform several sensitivity tests to check the robustness of the results. First, we re-estimate the price model and return model regression by including firms with negative equity book value and add dummy EBV variable, stated as one if the firm has positive equity book value and zero otherwise. The results from both models are materially similar compared to those reported in table 3. Furthermore, to rule out the effect of sample composition changes in the results of the whole sample, we estimate the regression of price model and return model using a match-sample consisting firm-observations available in all sample periods. By deleting firms with less than eight
years data (2005-2012), we get 772 firm-year observations of price model and 768 firm-year observations of return model for each period. The results remain materially unchanged compared to those of the whole sample for both models.

Also, we perform a stability test by dividing the test period 2005-2012 into a narrower period. The narrowed periods are 2006-2011 with 1,763 firm-year observations for price model and 1,649 firm-year observations for return model; 2007-2012 with 1,179 firm-year observations for price model and 1,105 firm-year observations for return model; and 2008-2009 with 588 firm-year observations for price model and 568 firm-year observations for return model. Table 4 Panel B provides the regression results from the price model and returns model using three kinds of a narrower period before and after accounting standards change. Overall, the results from a stability test are consistent with the main test results. As in the main test, the magnitude of earnings coefficient and equity book value coefficient in the later period are higher than the previous period for both models in all narrowed period. From the results of return model, we find the significant coefficient of earnings changes in three narrowed periods (2008, 2007-2008 and 2006-2008).

Finally, we perform a sensitivity test by using interest rates as a control variable. As Johnson (1999) argues that interest rates should be included in models whenever inferences about changes in the value relevance of earnings due to non-interest rate factors are hypothesized. We use Bank Indonesia certificate (SBI) rate of return as a proxy of the risk-free rate. As seen in Table 4 Panel C, the results remained qualitatively unchanged. The coefficient of all variables and adjusted R-squared from both models are similar to those in the primary test.

4.4. Additional Analyses

4.4.1. The Effect of Negative vs. Positive Earnings

Hayn (1995) find that firms with positive earnings have a significantly higher earnings response coefficient than those with negative earnings. Furthermore, some other studies also find that equity book value becomes more relevant than earnings when firms have negative earnings (Burgstahler and Dichev, 1997; Collins et al.,
1997; Chen et al., 2001). Widodo Lo (2012), using a sample of Indonesian listed firms, finds evidence based on price model that equity book values and earnings are value relevant when both equity book values and earnings are positive, and not value relevant when both equity book values and earnings are negative. Therefore, in this analysis, we expect that the accounting information of firms with positive earnings is more value relevant than firms with negative earnings before and after the accounting standards change. Different from Widodo Lo (2012), this study uses a price model and return model to analyze the effect of positive vs. negative earnings on the value relevance.

Table 5 presents the results of regression to analyze the effect of negative vs. positive earnings on the value relevance of accounting information. We find a mixed result depend on the model used. From price model analysis, for a group of firms with negative earnings, the coefficients of earnings in both periods are negative and not significant, but the coefficients of equity book value are positive and significant. This result suggests that book value become more relevant for firms with negative earnings. The adjusted R-squared in the later period decreases from 42.3% in the previous period to 31.4% in the later period. From the group of firms with positive earnings, we find results as predicted. The coefficient of earnings and equity book value are positive and significant with adjusted R-squared more than 70% for both periods. As predicted by the theory, the earnings variable plays a vital role together with the equity book value variable for firms with positive earnings. The adjusted R-squared also increase significantly from 70.5% in the previous period to 78.4% in the later period. This result is consistent with Widodo Lo (2012) finding.

The returned model gives a different result for groups of negative earnings. None of the coefficients is significant for both periods, and the model is also insignificant. On the contrary, for positive earnings groups, we find a significant positive coefficient of earnings, which substantially increase from 140.03 in the previous period to 320.68 in the later period. The adjusted R-squared also significantly increases from previous (5%) to later period (17.9%). However, we only find a significant coefficient of earnings change in the later period in the positive earnings group with a negative sign.
The finding of less informative of loss is consistent with the results of previous studies. Hayn (1995) and Chen et al. (2001) also find a weaker response of losses. Hayn (1995) find an extremely low and insignificant earnings coefficient when only loss cases are considered. Further, she discovers that the coefficient and R-squared decline monotonically with the number of years in which the firm experience a loss. Chen et al. (2001) using a sample of China market also find that negative earnings are not valued relevant. They argue that investors perceive negative earnings as non-sustainable and focus on the information reflected in equity book value.

4.4.2 The Effect Firm Size

Firm size has been examined as a factor related to value relevance. Several prior studies show that accounting information is more value relevant for a smaller firm than larger firm because larger firms receive more media coverage and other forms of public attention than smaller firms do. Consequently, stock prices of larger firms either incorporate more public information about the firm`s prospect or aggregate such information more quickly than smaller firms, both of which will lead to a lower earnings response coefficient in larger firms (Chen et al., 2001). However, Chen et al. (2001) and Alali and Foote (2012) find different results on the effect of firm size on value relevance from return model and price model. Based on the return model, accounting information of smaller firms is more value relevant than larger firms, while the finding based on price model shows an opposite result.

To examine the effect of firm size, we exclude firms with negative earnings since the result from return model shows that this group does not value relevant, then make a partition of the sample equally into two groups according to the magnitude of firm`s market value. By estimating price and return model, we compare the value relevance between a group of small and large firms; then we also examine the change of value relevance within a group of small and large firms before and after the accounting standards change. Table 6 shows the results of the regression model from the group of small firms and large firms.

From price model, large firms had higher earnings coefficient and adjusted R-
squared for both periods. Comparing within the groups, small firms had a similar earnings coefficient and adjusted $R^2$-squared for both periods. Meanwhile, the value relevance of large firms increases in the later period. The results from the return model also support the findings in the price model. The earnings coefficient and adjusted $R^2$-squared in groups of large and small firms increase in the later period, which suggests that value relevance increases in the later period for both of the groups. However, large firms have higher earnings coefficient and adjusted $R^2$-squared compared to small firms in the period before and after accounting standards change. Different from previous studies findings, this study finds similar inferences from price model and return model, that accounting information of large firms is more value relevant than small firms.

4.4.3 The Effect of Good Corporate Governance

Prior studies document that effective corporate governance mechanisms are associated with fewer earnings’ management as the properties of accounting quality (Van Tendeloo and Vanstraelen (2005), Kent et al. (2010), and Liang and Shan (2011). Specifically, Lestari (2013) find that firms with a better implementation of corporate governance have a better quality of earnings based on income smoothing, accrual quality and timely loss recognition before and after accounting standards change of these findings, we can infer that firms with good corporate governance practice are more concern with accounting quality. So, we expect that these firms have a better value relevance of their accounting information.

To test the effect of corporate governance on value relevant, we identify firms with a high level of corporate governance perception index (hereafter referred to as CGPI) based on data from the Indonesian Institute for Corporate Governance. For price model, there are 241 firms with a high level of CGPI (hereafter referred to as "CGPI firms") and 2,097 firms without a high level of CGPI index (hereafter refer to as "non-CGPI firms"). For return model, we have 230 CGPI firms and 1,964 non-CGPI firms. Table 7 presents the results from a regression model from a group of CGPI and non-CGPI firms.
Comparing the period before and after accounting standards change, from the price model, we find that value relevance of CGPI firms and non-CGPI firms increase after accounting standards change. However, the return model analysis gives different results. For CGPI firms, a coefficient of earnings decreases in the later period and adjusted R-squared does not significantly increase. On the contrary, non-CGPI firms have an increase earnings coefficient and adjusted r-squared. The comparison between CGPI firms and non-CGPI firms give us similar inferences about value relevance using price and return models. The results show that group of CGPI firms are more value relevant before and after accounting standards change. This finding supports the assumption that firms with a higher level of good corporate governance are more concerned about the accounting quality of their financial statements.

5. Conclusion

The objective of this study is to examine the value relevance of accounting information in Indonesian market under substantially IFRS-convergent accounting standards after recent revisions of the standards. Using data of firms listed on IDX, this study compares the value relevance of firms’ accounting information in 2005-2008 and 2009-2012. The value relevance change is analyzed using price model and return model by testing the coefficient and adjusted R-squared. As additional analyses, this study also examines the effect of some factors, including negative vs. positive earnings, firm size, and corporate governance quality on value relevance.

This study finds that the value relevance of accounting information increases after accounting standards change. Also, this study documents the less informative of negative earnings and shows that large firms and firms with a higher level of good corporate governance are more value relevant before and after accounting standard change. These findings contribute to the ongoing debate of IFRS convergence effect on accounting quality, especially the case in emerging markets.

However, the results of this study are still subject to several limitations. Although the results are robust to some sensitivity tests, we acknowledge that some other factors may influence the value relevance change during the sample period. Include some
other control variables and apply other methodology to analyze value relevance change (e.g., Barth et al., 2008 approach) may give a different insight about the impact of accounting standards change on value relevance.

Reference


IFRS and Indonesian GAAP (PSAK): Similarities and Differences. 2012. Available at www.pwc.com/id.


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