Analysis of Value Relevance of Accounting Information During IFRS Period of 2008 –2014 at The Stock Exchange of Indonesia

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Abstract
This study aims to provide evidence about the value relevance of accounting information in a period of convergence of IFRS (2008-2014). Theoretically, this study describes the value relevance theory, signal theory, and the theory of regulation on IFRS convergence phenomenon. The study population is the entire manufacturing and financial services that go public who reported financial statements for seven consecutive years on the Indonesia Stock Exchange starting from 2008 until 2014. The results showed that the value relevance of information earnings, book value, and cash flow in the period 2008-2014 IFRS convergence. Individually value relevance of earnings and book value information in the implementation phase of IFRS has a value relevance is higher than the early adoption phase of IFRS, but the value relevance of cash flow information in the implementation phase of IFRS has a value relevance is lower than the early adoption phase of IFRS.

Keywords: Value Relevance, Convergence of IFRS, Accounting Information, Earnings, Books Value, Cash Flow.
Introduction:
A qualified accounting standard comprises of comprehensive principles that are neutral, consistent, proportion, relevant and accountable that is useful for investors, creditors, and other parties to determine capital allocation decision (SEC, 2000). The needs for qualified standard determine the adoption of IFRS (International Financial Reporting System) based on the improvement in accounting quality and uniformity of international standard. In its development, IFRS adopts many fair values that use realization and current values. Fair value is a measurement based that is deemed to be more independent and impartial. Trend of using fair value as the basis of measurement and assessment is predicted to increase annually (Purba, 2010, page 37).

Adopting IFRS affects the measurement aspects of financial reporting items, such as net income and equity (Jermakowijcz, 2004), and adopting IFRS improves the quality of financial statement (Daske and Gunther, 2006). The application of IFRS standard on the financial report items can reduce the level of earning management, in addition adopting IFRS positively affects toward share holder equity, net income, and liquidity (Tsalavautas and Evans, 2010).

The high quality of accounting information has its own relevance of net income and high equity book values (Barth et.al, 2008). Based on the signal theory (Scott, 2012: 475), a company can improve its value through its reporting by sending its signals through its annual report. Thus, IFRS is expected to act as a standard to improve the quality of accounting information due to the use of fair value that can be more reflecting the economy condition of the company. Based on the previous research, there is contradictive evidence concerning whether the implementation of IFRS can improve the quality of accounting information (Karampinis and Hevas, 2011, Alali and Foote, 2012). As an example, the result of the research (Ashbaugh and Pincus, 2001; Horton et.al., 2008; Dobija and Klimczak, 2010; Alali and Foote, 2012) showed that IFRS provides more value relevance and predictable of accounting information. On the contrary, contradictive evidence is found on the research (Lin and Chen, 2005; Callao et.al., 2007; Meulen et.al., 2007; Gordon et.al., 2011; Paulo et.al., 2013). They provide evidence that there is not any improvement on value relevance of accounting information after the adoption of IFRS.

Therefore, the issue of this research is still important particularly in Indonesia that has started adopting IFRS in 2008 and its application gradually has started been done in 2010 and has simultaneously been applied in 2012. As the researches in other countries, there is still a debate and research questions whether the application of IFRS in Indonesia can improve the quality of accounting information. This research is crucial because the quality of accounting information is essential to make capital market function that assists in reducing the uncertainty of the investors and improving market transparancy to other investors and stakeholders. The objective of the research is to test the effect of income, book value, and cash flows toward the stock market in the convergent period of IFRS from 2008 until 2014.

Literature Review and Hypothesis Development:

Definition Relevance Value
A number of accounting is defined as the value relevance if the figure is associated with equity market values (Ohlson, 1995; Barth, 2001; Holthausen and Watts, 2001). Accounting information is said to have value relevance if the accounting information can be used to predict the company's market value (market stock price or stock returns) (Barth, 2001).

Easton (1999) and Beaver (2002) states that the value relevance research aims to examine the association between the dependent variable based on the price of securities by a number of fundamental accounting variables. A number of accounting called "value relevant" if the numbers associated with the dependent
variable (price / return securities). Value relevance research plays an important role to provide empirical evidence on accounting numbers associated with the predicted value of the securities market.

**Signal Theory**

Information published as an announcement will give a signal to investors in making investment decisions. If the announcement contains a positive value, it is expected that the market will react to the timing of the announcement is received by the market (Hartono, 2003: 392). At the time the information was announced and all market participants have received such information, market participants prior to interpret and analyze information such as signal (good news) or the signal is bad (bad news). If the announcement of such information as a good signal for investors, then there is a change in the volume of stock trading.

**Value relevance of Earning Per Share , Book Value Per Share, and Cash Flow Per Share**

**Earnings Per Share**

Earnings is net income that the company is able to achieve when it is operating. Earnings per share (EPS) is obtained from the income available for the regular stakeholders divided by the average number of circulated regular stocks. Earnings is said to have the content of information if the announcement of earnings will create changes in the reaction of the investors toward the distribution of the cash flow in the future that will cause the changes in the stock price and returns.

Adopting IFRS can improve the value relevance of accounting information and positively responds by the investors. Other than that, it is also proven that earnings information is valued higher after the adoption of IFRS in comparison before it was adopted and this result is proven to be a joint data of (Europe Union and Australia) and the data in Europe Union but not for the sample in Australia (Darmawan, 2012). Other than that, according to Refyal and Martani (2012) the existence of financial accounting standard revision adoption causes the responds of investors toward the earning reporting increases. The research conducted by Clarkson (2011) showed that the application of IFRS improve the earnings relevance shown by greater EPS value. The same goes Chalmers et al research (2011) found that the earnings has more value relevance after the application of IFRS.

Ball et.al. (2003) claimed that adopting a qualified standard will produce qualified financial reporting. Therefore, if IFRS has a good quality, then it is expected that it improves the quality of financial accounting information. The value in the financial report such as the earnings is considered to be the signal that shows the value of the company (Hughes, 1986). Based on the elaboration, the hypothesis formulation proposed in this research is:

**H1a: Earnings has a value relevance during the convergent period of IFRS**

**Book Value per Share**

The equity book value describes the number of stakeholder equity that is reported and reduced by preference stock and reported in the company balance. When the company experiences financial distress, then the information value of equity book becomes more relevant compares to income information in assessing the company.

Research conducted by Thornton (2006) found that by adopting IFRS provide positive impact between the company equity and the market value of the company. The same goes with the Tsalavoutas research (2007) that found that the implementation of IFRS has a positive impact between equity and market value in a Greece company. Research conducted by Clarkson, et al. (2011) showed that the application of IFRS
improves the relevance book value shown through greater BVPS value. On the contrary, the research conducted by Chalmers et al (2011) found that the equity book value was not found increasing after the application of IFRS period, so does Hugh and Subramayam (2007) who discovered that there are not any increase of the relevance value of equity and income book value in the companies in German on the first year the company adopted IAS/IFRS.

Ball, et al. (2003) claimed that by adopting a qualified standard will produce qualified financial reporting. Ohlson (1995) claimed that book value is a proxy for expected future normal earnings and more useful balance approach in assessing the company because it describes the condition of the company’s resources appropriately. Barth and Landsman (1995) claimed that in a perfect market, fair value accounting balance sheet is presenting more on all relevant information. Based on the elaboration, then the hypothesis proposed in this research is:

**H1b: Book Value has a value relevance during the convergent period of IFRS.**

**Cash Flow per Share**

Cash flow report acts as a whole description concerning cash receipts and disbursement. Information in the cash flow is useful to assess the ability of the company in producing cash and equivalent cash. Cash flow is more informative than earnings because the cash flow reduces the problem in manager manipulation on accrual earnings and cash flow is not affected by accounting rules (Lev and Zarowin, 1999).

Adopting IFRS can increase the value relevance of cash flow in two countries in Bahrain and United Emirate Arab (Barzegari, 2011). Kwon research (2009) found that cash flow has more value relevance than earnings and book value, it shows that Korea capital market tends to see cash flow information first than other information, whereas Karunarathne and Rajapakse research (2009) in Colombo, EPS has high value relevance than the book value and cash flow. Valencia and Mulyani (2012) claimed that operational cash flow has value relevance for investors to predict future cash flow.

Ball et al. (2003) claimed that adopting qualified standard will produce qualified financial reporting. Thus, if IFRS has a good quality, then it is expected to improve the quality of financial report information. A new relevant information will affect cash flow should be announced immediately, so that stakeholders will use in determine their investment decision (Copeland, 1981). On other words, the market reacts toward the impact of cash flow from the decisions of the management. Based on the elaboration, the formulation of the hypothesis proposed in this research is:

**H1c: Cash Flow has a value relevance during the convergent period of IFRS.**

**Research Methods:**

**Population Research**

The study population is the entire manufacturing and financial services that go public who reported financial statements for seven consecutive years on the Indonesia Stock Exchange starting from 2008 up to 2014. The sample in this study were obtained by purposive sampling method by way of judgment sampling, ie by providing criteria into a certain consideration, with the following criteria:

2. Manufacturing and Financial Services Company has the stock price data and the number of shares on the Indonesian Stock Exchange during 2008-2014
3. Manufacturing and Financial Services Company that during the years 2008 to 2014 have earnings, the value of equity, and cash flow positive.

**Research Variable and Measurement Technique**

This research uses a stock price as a dependent variable. A stock market is a representation of investors’ assessment and relevant information related to the company (Houlsthasen and Watts, 2001). The stock exchange price is measured by the price per share of the company on the date of delivering financial report. It reflects the price of the stock exchange after an audit is published (Karunarathne and Rajapakse 2010). The test of value relevance uses price model developed by Ohlson (1995) namely it is consistent with the previous research of IFRS period such as Barth, et al. (2008), Karampinis and Hevas (2011), and Alali and Foote (2012).

Independent variable (X) used in this study are:

1) Earnings per share (EPS or X1)
   Earnings is net income before extraordinary items and discounted operations.

   \[
   \text{Earnings} = \frac{\text{Earnings}}{\text{number of shares outstanding}}
   \]

2) The book value per share (BVPS or X2)
   The book value per share showed net assets held by the shareholders by having a share.

   \[
   \text{Book value per share} = \frac{\text{Equity}}{\text{number of share outstanding}}
   \]

3) Total Cash Flow per share (CVPS or X3)
   Total cash flow is the total cash flows which are net income added back with depreciation and amortization.

   \[
   \text{Total Cash Flow per share} = \frac{\text{Total Cash Flow}}{\text{number of share outstanding}}
   \]

**Hypothesis Test**

The test instrument used for the analysis is Regression Test. To see that the accounting information proxy by earnings, book value, and cash flow has a relevance so that it causes changes in stock exchange, namely by using \( R^2 \) as the gauge of the relevance value.

Regression model to test the hypothesis is:

1. \( Y = \beta_0 + \beta_1 X_1 + \varepsilon \)
2. \( Y = \beta_0 + \beta_2 X_2 + \varepsilon \)
3. \( Y = \beta_0 + \beta_3 X_3 + \varepsilon \)

Notes:
- \( Y \) = Stock price during the deliverance of financial report
- \( \beta_0 \) = intercept or constant
- \( X_1 \) = Earnings
- \( X_2 \) = Book Value
- \( X_3 \) = Cash Flow
- \( B_{1,3} \) = Regression coefficient of variable 1 to 3
- \( \varepsilon \) = Error term
Result of Analysis and Discussion:

Results Sample Selection and Use of Data

Based on the sample criteria determined in the previous chapter namely manufacture and financial service companies registered in the Indonesia stock exchange from 2008 up to 2014 a sample number of 70 for manufacture company and 48 for financial service company so that the total number of the sample is 118 companies.

Before hypothesis test is conducted, a classic assumption test is conducted on three research models with the number of sample of 118 companies. From the normality test results of all models for each year for the entire six years, it is found that significance value is greater than 0.05 which is categorized normal distribution. For heteroscedacity test, it shows that all three research models on each convergent period of IFRS (2008 – 2014) for all company samples do not experience heteroscedacity shown by a significance value (Sig.) which is greater than 0.05. For multicolinearity and autocorrelation test, they were not needed to be conducted because this research conducted partial tests with simple regression linear and apply cross-section data.

Hypothesis Test

Earnings Variable

Based on the result of the test, the coefficient of the regression of earnings variable per share each year is statistically significant. This result support that earnings per share has a value relevance. The test result of R^2 shows that the clarity power of earnings per share for the period or level of IFRS adoption, namely in 2008 up to 2010 is lower compared to the preparation period or level (in 2011) and the implementation period or level (2012). The implementation period of IFRS has R^2 value of 77.4% that is higher compare to the adoption and preparation level. However, in 2013 and 2014 there is a decrease in a relevance value of income information.

Book Value Variable

Based on the test result, the coefficient regression variable of the book value per share each year is statistically significant. This result supports that the book value per share has a value relevance. The test result of R^2 shows that the clarity power of the book value per share for the period or level of adoption and preparation of IFRS has an increase. On the implementation level, the IFRS has decreased compares to the preparation level. In 2012, the implementation level has the R^2 value of 54.9% and in 2013 (44%) decreased compared to the preparation level of 59.9%. In 2014, it increases compared to 2012 and 2013.

Cash Flow Variable

Based on the test result, the coefficient regression of the cash flow variable per share each year is statistically significant. This result supports that the cash flow per share has a value relevance. The result test of R^2 shows that the clarity value of the cash flow per share on the adoption level of IFRS experiences an increase and decrease. In 2009, it increased compared to 2008, and in 2010 it decreased compared to 2009. The preparation period or level (2011) of 30.1% decreased compared to 2010 of 35.8% and the implementation level of IFRS of 26.9% decreased compared to the preparation level of 30.1%, whereas in 2013 and 2014, there was an increase compared to 2012.

Table 1 below is the result of the regression for the entire sample of the company namely manufacturer and financial service companies.
Table 1

Result of Regression of the Manufacturer and Financial Service Companies

Model: \( Y = \beta_0 + \beta_1 X_1 + \varepsilon \) (EPS)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \beta_1 )</td>
<td>0.604*</td>
<td>0.837*</td>
<td>0.874*</td>
<td>0.840*</td>
<td>1.048*</td>
<td>0.826*</td>
<td>0.715*</td>
</tr>
</tbody>
</table>

Model: \( Y = \beta_0 + \beta_2 X_2 + \varepsilon \) (BVPS)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \beta_2 )</td>
<td>0.677*</td>
<td>0.965*</td>
<td>1.187*</td>
<td>1.014*</td>
<td>1.112*</td>
<td>0.845*</td>
<td>1.046*</td>
</tr>
</tbody>
</table>

Model: \( Y = \beta_0 + \beta_3 X_3 + \varepsilon \) (CFPS)

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \beta_3 )</td>
<td>0.506*</td>
<td>0.634*</td>
<td>0.650*</td>
<td>0.462*</td>
<td>0.553*</td>
<td>0.490*</td>
<td>0.447*</td>
</tr>
</tbody>
</table>

*significant at the 0.01 level

Table 2 below is the whole summary result of \( R^2 \) for entire sample of the company, namely manufacturer and financial service companies.

Table 2

A Summary Result of R Square for All Samples (Manufacturer and Financial Service)

<table>
<thead>
<tr>
<th>Period</th>
<th>( R^2 ) All Samples</th>
<th>Earnings</th>
<th>Book Value</th>
<th>Cash Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>0.407</td>
<td>0.204</td>
<td>0.306</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>0.643</td>
<td>0.547</td>
<td>0.405</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>0.619</td>
<td>0.588</td>
<td>0.358</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>0.725</td>
<td>0.599</td>
<td>0.301</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>0.774</td>
<td>0.549</td>
<td>0.269</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>0.620</td>
<td>0.440</td>
<td>0.290</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>0.610</td>
<td>0.576</td>
<td>0.292</td>
<td></td>
</tr>
</tbody>
</table>
Discussion
The test of value relevance of accounting information for all company samples of manufacturer and financial service that earnings, book value, and cash value affect the stock price during the convergent period of IFRS (2008 – 2014). The result obtained that the increase of the earnings, book value and cash flow will increase the stock price. This result is in accordance with the research of Ionnis Tsalavoutas and Evans, 2010 that found evidence that the implementation of IFRS increased the position of financial and performance of the company registered in Greece.

Relevance test focuses on the changes on the value of $R^2$ on the convergent of IFRS. If the value of $R^2$ increases significantly, it can be concluded that accounting information increases the value relevance due to the adoption of IFRS (Barth et al., 2008; Karampinis and Hevas, 2011). The result of the value relevance proxy by $R^2$ that the value information of earnings, book value, and cash flow individually showed that the clarity power of earnings is higher for the implementation period of IFRS (2012) compared to the adoption or preparation period of IFRS, but not for the book value and cash flow that decreased on the implementation level of IFRS (2012). It is consistent with the value of the equity book value where the equity book value did not experience an increase in the period after the application of IFRS. It is also proven by Dobija and Klimczak (2010), Hellstrom (2006), Fillip and Raffournier (2010) that the value relevance of earnings become increasing significantly on the use of IFRS. The result is different than the result in 2012 after the application of IFRS (in 2013) on the individual tests, there was a decrease on the use of accounting information on earnings and book value but for cash flow there had been an increase in 2013 compared to 2012.

Conclusion:
This research is aimed at providing empirical evidence concerning the influence of accounting information toward the market value reflected on the stock price or on the other words, this research is aimed at finding empirical evidence of accounting information value on the manufacture and financial service companies during the convergent period of IFRS (2008 – 2014). The research result with a simple regression that accounting information such as earnings per share, book value per share, and cash flow per share has a value relevance during the adoption period of IFRS of 2008 – 2014. The earnings and book value on the implementation phase of IFRS has a value relevance higher compared to the adoption phase of IFRS. On the contrary, the cash flow for the implementation phase of IFRS is lower compare to the adoption phase of IFRS.

References:


