Value Relevance and Reliability of Intangible Assets Around the IFRS Adoption: Case of Indonesia

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Value Relevance and Reliability of Intangible Assets Around the IFRS Adoption: Case of Indonesia

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The aim of this study was to obtain empirical evidence on value relevance and reliability of intangible assets. The usefulness of financial reporting is determined by the trade-off between relevance and reliability. Intangible assets disclosure as one important information in financial reporting should also provide value relevance and value reliability. With the implementation of IFRS, the value relevance of IFRS should outperform its reliability. This study employed eight-year period divided into two consecutive observations with 2007–2010 as the period of pre-IFRS implementation, and 2011–2014 as the period of post-IFRS implementation. Using 935 firms-observations from listed companies in Indonesian Stock Exchange (IDX), data were performed with Ohlson price model and multiple regression analysis. The result of this research showed that intangible assets have value relevance, and surprisingly the value relevance did not increase in the post IFRS implementation. A trade-off between reliability of intangible assets and its value relevance occurred in the pre IFRS adoption and subsequently the trade-offtend to decline in the period of post IFRS adoption.

Keywords: Value Relevance, Reliability, Intangible Assets, Trade-Off.

1. INTRODUCTION

Value relevance of financial reporting is a condition when the information can influence user's decision making process rightfully and at the end, it would reflect back in the increasing of firm value.[17] A qualitative characteristic of useful information related to relevance aspect; therefore, must contain predictive value, confirmatory value, and timeliness.[6] Besides having relevance, a financial report with quality information is essentially has reliability feature. When information is deemed as reliable, it should reflect the underlying economic reality.[4] Lack of reliability would make financial report to mislead the readers.[9] Both of relevance and reliability constitute a complementary role apart of its trade-off between those two properties.[11] The relational effect of reliability towards relevance also exists in one of the components of a financial report called intangible assets. Intangible asset disclosure will require company to focus more on reliability while it will compromise its relevance aspect. Hence, there is trade-off between reliability and relevance.

The empirical evidence on the trade-off between reliability and relevance find mixed results. The unbalance of value contents in relevance and reliability will cause a bias in a financial report.[9] The research topic on reliability and relevance of intangible assets becomes interesting because it is still rarely done in Indonesia, especially the researches which use span of pre- and post-implementation of IFRS-based PSAK since the year 2007 until the year 2014.

2. LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Relevance and reliability are primary qualities of financial reporting that serve as the basis for decision making. The information in a financial report is relevant when it is helpful in the decision making.[18] The information in a financial report must fulfill reliability because if it doesn't contain truth, the information will lose its benefit and will mislead the readers.[9]

Based on the theory of signaling, the signal given by the manager can be used as one of the ways to decrease information asymmetry by presenting trustworthy or reliable information. A company should give signal in the form of information which contains reliability or is trustworthy because the signal will be useful to make decision. Subsequently, market will react positively if a company gives signals that contain good prospects in the future. Intangible assets themselves have good prospects.[4] The reportage of intangible assets gives positive signal to the investors because it has value relevance that can cause the increase of the investor's interest to the stock and shares of the company. Ji and Lu[11] revealed the research of Goodwin and Ahmed[8] that companies which capitalize their intangible assets increase their value relevance compared to companies which

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don't capitalize their intangible assets. Based on that, Hypothesis 1 is formulated as follows:

H1: Intangible assets possess value relevance.

Accounting information is one the important factors which become the basis for the readers of financial report to make decision. Decision making approach explains in detail that a company must be able to provide a quality financial report to give benefit to the financial report readers.[18] In regard with accounting standard, there a shifting of rule on how intangible asset were presented and disclosed. Previously, under the rule of PSAK 48, element of intangible asset was subject to amortization. Amortization decreases value relevance since it is not calculated based on the market's condition. The adoption of IFRS through IAS 36 enables the value decrease which is estimated based on the market price so that it can increase the value relevance. The using of proper value in IFRS may also increase the value relevance.

Value relevance is expected to rise if the coefficient of the intangible assets in the period of post-implementation of IFRS has stronger effects to the value relevance that becomes from the period of pre-implementation of IFRS-based PSAK. As a result, Hypothesis 2 can be formulated as follow:

H2: Intangible assets possess value relevance in post-implementation of IFRS-based PSAK.

One main problem to existing accounting standard is it impede company to do measurement or claim the intangible assets reliably and relevantly with the same high quality. In the end, a company has to choose between to fulfill value relevance first or to fulfill reliability first, which then it will cause trade-off. If a company chooses one of them and neglects another, the quality of the financial report will decrease and the users of the financial report will make mistake in making decision.

Trade-off will present balanced quality of information between reliability and relevance if the coefficient of the intangible assets in the company which is less reliable in reporting its capitalization of intangible assets (TTA-TL < 0) is significantly bigger than the coefficient of the company which is more reliable in reporting its capitalization of intangible assets (TTA > 0). The coefficient of intangible assets in the company with (TAB-TL < 0) which is bigger than in the company with (TAB-TL > 0) means: the less reliable the company in reporting its intangible assets is, the more rising its value relevance is. From that, Hypothesis 3 is formulated as follow:

H3: There is trade-off between value relevance and reliability of intangible assets.

The implementation of IFRS as the standard reference is intended to increase the value relevance and reliability. According to Ji and Lu[11] IFRS limits the possibility of capitalization of intangible assets in the balance, so there isn't much information reported. It may result in the decrease of value relevance. Ji and Lu[11] explain in detail that the tightness of the regulations to admit intangible assets will increase its reliability. It is because the tight regulations will make the intangible assets are reported as the real condition, and it cause trade-off between value relevance and reliability.

Trade-off between relevance and reliability post-implementation of IFRS-based PSAK happens if the coefficient of intangible assets in a company which is less reliable in reporting its intangible assets (TTA-TL < 0) is significantly bigger than the coefficient in a company which is more reliable in reporting its intangible assets (TTA-TL > 0). The coefficient of intangible assets in a company with (TAB-TL < 0) which is bigger than a company with (TAB-TL > 0) means: the less reliable a company in reporting its intangible assets is, the more rising its value relevance is. From that, Hypothesis 4 can be formulated as follow:

H4: Trade-off between value relevance and reliability of intangible assets will increase in the post-implementation of IFRS.

Table I. Variables measurement.

No	Variables	Indicators
1	Value relevance (MV)	Market capitalization on the two days after the publishing of audited financial report
2	Reliability (TAB-TL)	The total of intangible assets—the total of liabilities
3	Intangible assets (ATB)	The total of intangible assets capitalized at the end of book year

3. RESEARCH METHOD

3.1. Value Relevance

Dependent variable is value relevance. The value relevance in this research becomes proxy with market capitalization. Market capitalization proxy is a modification of the price model of Ohlson[15] and it has been used in the research of Ji and Lu[11] and Elshandidy[5] to put the value relevance to the test. Market capitalization used is circulated stock multiply by closing stock price on two days after the publishing of audited financial report. It is because on the date, investors are assumed that they have received signal in the form of financial report publishing and they have translated the signal so that they can make decision, then the decision making affects the stock price in the stock exchange.

3.2. Reliability

The total of tangible assets—the total of liabilities (TAB-TL) is the variable used to interpret the reliability in the reporting of intangible assets capitalization.[11] The company is considered to have more reliability if TAB-TL > 0. If a company can fulfill its all duties through tangible assets, it has a small intensive to develop its asset total through capitalization of intangible assets especially intangible assets, and vice versa. The intangible assets reported by a company with TAB-TL > 0 are assumed to have a more reliable calculation. If TAB-TL < 0, the company has a less reliable reporting about intangible assets. The total of tangible assets used in this research is the total of fixed assets at the end of year.

3.3. Intangible Assets

According to PSAK 19, intangible assets are assets without tangible, but they can be identified and they are not one of monetary assets. Even though these intangible assets don't have physical form, they will give real contribution to the company in the future. The company will also get income through special rights of intangible assets.

3.4. Data and Sample

Samples used in this research are listed companies at Indonesian Stock Exchange and reported their intangible assets since

2007 until 2014. The years 2007–2010 is the period of pre-implementation of IAS 36 (about value decrease) and IAS 38 (about intangible assets toward PSAK), and the years 2011–2014 is the post-implementation period. The method used is purposive sampling.

3.5. Method of Analysis

This research was done by using the similar model used by Damash et al.,[4] Ji and Lu[11] and Elshandidy.[5] It is the modification of Ohlson's price model. The multiple regression analysis is illustrated with formula:

$$MV_{it} = \alpha_0 + \beta_1 ATB_{it} + \beta_2 (TAB\text{-}TL)_{it} + \varepsilon_3 \quad (1)$$

Explanation:
MV_{it}: Market capitalization two days after the audited financial report was published by company i year t; $(TAB\text{-}TL)_{it}$: The total of tangible assets minus the total of liability of company i year t; ATB_{it}: Intangible assets of company i year t; α: Constant; β: Coefficient; ε: Residual error.

4. RESULTS AND DISCUSSION

This research was done to test the significance of intangible assets value in the companies which capitalized them since 2007 until 2014. Table II presents the descriptive statistical summary of each of the variables.

Descriptive statistics testing shows that 2014 reveal the highest intangible assets capitalization average, that is IDR 26.153 Billions and the lowest is in 2009 that is IDR 6.852 Billions. In the year of 2012 until 2014 shows the increase of intangible assets average, and it indicated the increase of the company's interest to do business combination and to capitalize the intangible assets.

The average of intangible assets capitalization has a smaller value than the average of total of tangible assets. It indicated that there were not many companies in Indonesia in the period of 2007–2014 which increased their total of assets through intangible assets capitalization to close the total of tangible assets.

4.1. Value Relevance of Intangible Assets

The result of the data analysis can be seen on Table III. Panel A of All Samples, intangible assets have coefficient value 0.336 and probability 0.000 with a positive direction ($t = 15.882.3$). Intangible assets (ATB) have a significant influence towards stock Price, so hypothesis 1 is supported. Intangible assets had value relevance.

Table II. Statistics descriptive of variables.

	Min	Max	Mean	SD
Market capitalization (MV)				
Pre-IFRS	4	826.48	18.44	81.04
Post-IFRS	4	11.71.52	20.79	67.58
Whole period	4	1.171.52	19.88	73.08
Intangible assets (ATB)				
Pre-IFRS	0	10.41	354	1.14
Post-IFRS	0	26.15	621	2.22
Whole period	0	26.15	517	1.88
Tangible assets (TAB)				
Pre-IFRS	1	94.56	5.85	12.05
Post-IFRS	10	129.10	7.98	14.06
Whole-period	1	129.10	7.15	13.35
Total of liabilities (TL)				
Pre-IFRS	1	55.69	3.87	8.19
Post-IFRS	2	89.91	5.46	10.16
Whole period	1	89.91	4.84	9.47

Table III. Summary of statistical analysis.

	All samples	More reliable groups	Less reliable groups
Panel A: 2007–2014 period			
C	47,89***	44,63***	13,39***
ATB	15,82***	14,61***	6,85***
(TAB-TL)	3,71***	2,56**	−0,58
F	124,95	107,27	23,54
DW	2,04	2,03	1,99
Adj. R^2	0,21	0,21	0,29
n	935	826	109
Panel B: 2007–2010 period			
C	29,70***	27,94***	6,81***
ATB	10,29***	9,19***	6,88***
(TAB-TL)	2,78***	2,01**	−1,25
F	55,14	43,01	23,68
DW	2,17	2,06	2,62
Adj. R^2	0,23	0,20	0,58
n	364	330	34
Panel C: 2011–2014 period			
C	38,07***	35,42***	13,09***
ATB	11,34***	11,03***	2,98***
(TAB-TL)	2,25**	1,45***	−1,00
F	64,43	60,84	6,13
DW	1,99	2,05	2,08
Adj. R^2	0,18	0,19	0,12
n	571	469	75

This finding proved that market did not only need information about physical assets, but it also needed information about intangible assets, such as goodwill, brand, patent, and license. This finding was consequent with the research of Ji and Lu,[11] Oliviera et al.,[14] and Dahmash et al. (2010). Intangible assets had value relevance so that they were able to predict the future benefit which would affect decision of the financial report's readers, like signal theory, the company which reported its intangible assets capitalization would make market reacts.

In addition to all period observation, test was also conducted in two different phase of IFRS, namely pre and post IFRS adoption. The result showed that pre-implementation of IFRS-based PSAK period has higher coefficient of intangible assets than the post-implementation of IFRS-based PSAK period. The positive influence of intangible assets towards market capitalization did not increase in the post-implementation of IFRS-based PSAK, so the implementation of IFRS in Indonesia could not increase the value relevance of intangible assets. Hypothesis 2 then is supported.

The coefficient of intangible assets in the less reliable group was significantly bigger than the more reliable group. It indicated that the less reliable the company in reporting its intangible assets capitalization is the more rising the value relevance is. Hypothesis 3 is supported. This finding confirmed the theory of decision function that in producing quality information, a financial report should fulfill the relevance and reliability with a synchronized value.

Next finding indicated that coefficient of intangible assets in the less reliable group was not significantly bigger than the more reliable group. It indicated that in the period of post-implementation of IFRS-based PSAK: the more reliable a

company in reporting its intangible assets capitalization is, the more raising the value relevance is. Hypothesis 4 is supported. This finding confirms the theory of decision function that in producing quality information, a financial report should fulfill relevance and reliability with a synchronized value.

Trade-off between the reliability of intangible assets capitalization reporting and the value relevance in post-implementation of IFRS-based PSAK in Indonesia decreases. The result of this finding supported the finding of the research of Ji and Lu.[11] In the period of post-implementation of IFRS-based PSAK, it indicated that: the more reliable a company in reporting its intangible assets is, the more rising the value relevance is. Value relevance did not increase in the post-implementation of IFRS-based PSAK, but the result showed that the implementation of IFRS-based PSAK can decrease trade-off between value relevance and intangible assets reliability.

5. CONCLUSION

This research aims to test the value relevance and reliability of intangible assets both pre-implementation and post-implementation of IFRS-based PSAK in Indonesia. The study found that intangible assets possess value relevance. The implementation of IFRS-based PSAK is not able to increase value relevance of intangible assets capitalization. This decrease of value relevance indicates that investors perceive the reporting of intangible assets is less reliable. This finding is consistent with the research of Chalmers et al.;[3] Ji and Lu.[11] Next, this study found the trade-off between value relevance and reliability, but the implementation of IFRS-based PSAK can cope with the trade-off. The period of post-implementation of IFRS-based PSAK indicates that the more reliable the intangible assets which are reported by a company are, the more increased the value relevance is. This finding agrees with the purpose of the implementation of IFRS-based PSAK that is to synchronize the qualitative characteristics of a financial report: reliable, relevant, comprehensible, and comparable.

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