Has Goodwill Become More Relevant After IFRS Convergence in Indonesia?

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ABSTRACT: This research aims to analyze the value relevance of goodwill in Indonesia before and after International Financial Report Standard (IFRS) convergence. Prior to the IFRS convergence period, goodwill should be amortized, while after the IFRS convergence the amortization was prohibited and goodwill should be tested for impairment on annual basis. This research investigates goodwill among Indonesian listed companies in Kompas 100 index for the period 2009-2015. Using panel data regression analysis, the research finds before the IFRS adoption, both goodwill and goodwill amortization did not have significant value to the market value of the companies. However, goodwill has significant value to the market price of after IFRS convergence (2011-2015), while goodwill impairment losses did not. We also found more companies recording impairment loss at the adoption year than the years afterward. We tested the significance of impairment loss around the year of adoption and the test shows goodwill impairment loss has significant value to the market price of the companies. Thus, the adoption of IFRS 3 which required goodwill impairment has improved the value relevance of goodwill. The adoption of IFRS 3 also encouraged the companies to impair their goodwill at the adoption year. Impairment loss had been perceived positive by the investors which are shows by its positive sign of goodwill impairment coefficient. This may indicate Indonesian investors appreciate the purification of goodwill number from hidden past impairment and anticipate the higher future of Return on Asset.

KEYWORDS: value relevance; goodwill; goodwill impairment; goodwill amortization

Introduction

Companies' value and return on investment are two important factors for the investors when they decide to invest in the capital market. Investors usually expect their investments to provide profitable dividend yield and increasing share price every year. One way for investors in choosing a company as an investment is to look at the value relevance of the company's accounting information. Value relevance is the ability to explain (explanatory power) about accounting information in companies which influence corporate value. Relevant accounting information is important as a basis for economic decision-making by investors. Information on corporate value has reflected the circumstances and capabilities of the company in generating future earnings. Thus, it can be concluded that value relevant information is information which has the capacity to influence investor confidence about the stock return or investment expected in the future.

Indonesia has begun International Financial Reporting Standards (IFRS) convergence on January 1, 2012. The adoption of IFRS is one of (IFRS) convergence on January 1, 2012. The adoption of IFRS is one of the agreement of the Indonesian government as a member of G-20. As in other countries, it is still a debate and an important research question whether

the application of IFRS in Indonesia can improve the quality of accounting information (Cahyonowati & Ratmono, 2012). Based on research conducted by Suprihatin (2013), value relevance of financial statements, in terms of the book value of equity and corporate earnings at the initial stage of implementation, did not have value relevance. However, in the following year value relevance was improved, but only to the corporate earnings because the book value of equity did not experience any change.

The IFRS convergence led to a change in the accounting treatment on goodwill as Indonesia adopted IFRS 3 on Business Combinations into its local standard PSAK 22. Under PSAK 22, effective since January 1, 2011, companies are prohibited to recognize goodwill amortization. Starting in 2011, Indonesian companies eliminated the carrying amount related to the accumulated amortization and conducted annual goodwill impairment test. The accounting for goodwill has attracted different arguments and research conducted by many practitioners and researchers.

Previous studies showed that the annual amortization of goodwill is unable to produce useful information for users of financial statements. Goodwill amortization information only adds disturbance and challenges for the investors to predict the future profitability of the companies. (Jennings, LeClere, & Thompson, 2001; Kusuma, 2015; Moehrle, Reynolds-Moehrle, & Wallace, 2001). Impairment of goodwill as an accounting policy was introduced to improve the information of goodwill and to provide value-relevant information to the users of financial statements in order to reflect the true value of goodwill.

Financial analysts and investors tend to ignore the goodwill amortization expense information from the income statement. Previous studies have argued that the goodwill amortization as an expense only has a very small impact into income statement information. A research conducted by Reynolds-Moehrlre and Wallace (2001) argued goodwill amortization disclosures are not decision-useful to investors. The results of the study support the argument conclusion in that earnings excluding goodwill amortization disclosures provide decision-useful financial information equivalent to that contained in net income.

Some investors and other analysts view goodwill as an asset with indefinite useful life, therefore it is not appropriate if amortized. The statement is supported by research conducted by Jennings, LeClere and Thompson (2001). Jennings, LeClere and Thompson and Hidayanti and Sunyoto (2012) considered that the amortization of goodwill reduces the usefulness of accounting earning as a basis for valuation of shares. Jennings, Robinson, Thompson and Duvall (1996) also found that earnings before goodwill amortization were better able to explain the distribution of share prices than earnings with goodwill amortization.

Nevertheless, the goodwill impairment approach is also widely criticized by practitioners, academics, and standard board members because the method gave too much management discretion in conducting the impairment test. Massoud and Raiborn (2003) in Lapointe-Antunes, Cormier and Magnan (2009) argued that the freedom of management in applying accounting treatment can be used as a way to manipulate numbers on financial

statements. Watts (2003) in Lhaopadchan (2010) also criticized the approach and argued that assessing impairment requires an assessment of the company's future cash flows because future cash flows are difficult to verify and contractible because judgments are held by management and can be manipulated. Research conducted by AbuGhazaleh, Al-Hares and Roberts (2011) regarding the accounting discretion of goodwill impairments indicated that management makes discretion in the reporting of the company's goodwill. The reporting is also closely linked to the effectiveness of the governance mechanism to present information appropriate to the company's circumstances rather than by presenting information opportunistically.

Previous research on the relevance of goodwill value in Indonesia is conducted by Iswaraputra and Farahmita (2013). This research extended Iswaraputra and Farahmita research with broader observation years (2009-2015) and also investigate goodwill impairment loss as well as goodwill. With the implementation of new goodwill accounting policy due to IFRS convergence, a value relevance study of goodwill accounting treatment asset in Indonesia was still deemed necessary. This research aims to investigate the relevance of accounting to new goodwill accounting policy in Indonesia after the IFRS 3 adoption. The study uses companies in the Kompas 100 Index in the Indonesia Stock Exchange because these are companies with big market capitalization and more likely to have a significant number of goodwill in their financial position.

Our results showed that after IFRS convergence, goodwill has a significant positive effect on the stock market price of the company. This is contrary to the results of research conducted by Iswaraputra and Farahmita (2013) which had a negative influence on goodwill and market prices. Our research also revealed interesting results about goodwill impairment. Goodwill impairment had no significant effect on market price in the period after the IFRS convergence. However, in the adoption year of 2011 and the following year we found an increase in the frequency of impairment and our test provide evidence that goodwill impairment had a significant effect on market value around the adoption year. This suggested that the adoption of a new standard encouraged companies to record goodwill impairment. A goodwill impairment with a positive sign indicates that investors appreciate the cleanup of goodwill figures in the early adoption period and anticipate a possible increase in higher return on assets in the future.

This paper has the following structure: in the next section, we will explain the literature review and hypothesis formulation followed by the research method in the third section. The result of our study and the discussion are presented in the fourth section. This research is concluded with the conclusions and limitation of the study.

Literature Review and Hypothesis Development

Value relevance of accounting information is the ability of accounting information in explaining the corporate value in the market (Suryandari & Yunitha, 2011). Lev and Zarowin (1999) explained that accounting value

relevance is determined by the quality of an accounting information. The values contained in the financial statements have value relevance which is useful for investors to determine an economic decision.

The relevance of these values are reflected through corporate value based on market value, book value and corporate earnings. Market value can be reflected through share prices affected by company various information (Teweles & Bradley, 1998). The book value of equity represents the amount of equity held by the company's shareholders. Earnings and book value have a relationship which is relevant to the corporate value reflected by the share price on the market. Earning is one benchmark of profitability that becomes the basis for investors to assess the company.

Value relevance research suggests that the book value of equity have value relevance to the company's future income (Ohlson, 1995). Research also shows that earning numbers reflect information on expected cash flows and reflect the company's share price in the market (Kothari & Zimmerman, 1995; Ohlson, 1995). Based on the previous research, this study expects that the book value of equity and earning before taxes contain relevant accounting information of the company and influence the company's share price.

Goodwill arises if the company undertakes a merger or an acquire another entity through a business combination. Goodwill can become a useful information for investors as goodwill information explains that potential synergy produced from the business combination and potential earning produced by company post-acquisition. Prior to the IFRS convergence in 2011, Indonesian companies were required to reduce the goodwill value by systematically amortizing it for its economic useful life determined by the company. However, after IFRS convergence, goodwill accounting policy in Indonesia requires companies with goodwill to conduct impairment tests in accordance with PSAK No. 48 (an adoption of IAS 36) and report losses on goodwill (if any) on financial statements. Goodwill with its amortization or goodwill impairment losses can be relevant for investors in making an investment decision that corporate market value in the form of share prices will be affected by existing accounting information.

Goodwill Value Relevance After IFRS Convergence

Goodwill is an intangible asset expected to have a long life, arises after a business combination when an acquirer paid the consideration more than the fair value of the acquiree's net asset. Previous research on value relevance of goodwill exhibit a positive influence of goodwill to the corporate value proxied by share price (AbuGhazaleh, Al-Hares, & Haddad, 2012; Dahmash, Durand, & Watson, 2009; Godfrey & Koh, 2001; Henning, Lewis, & Shaw, 2000; Jennings, Robinson, Thompson II, & Duvall, 1996). The existing research suggests that investors feel goodwill reflects accounting information that supports the increase in earnings in the future of the company. Thus we develop our first hypothesis as follow:

H_1: *Goodwill value has a positive effect on corporate market value after IFRS convergence.*

Goodwill Impairment Value Relevance After IFRS Convergence

In accordance with PSAK 22, companies reporting goodwill on their financial statements need to conduct annual goodwill impairment tests in accordance with PSAK 48 (revised in 2009). This compulsory impairment test started in 2011 onward. The impairment loss (if any) is then reported in company income statement on the year when goodwill impairment testing is conducted. Goodwill impairment leads to a smaller total asset, in which investors should respond negatively as reflected by the declining share value. Therefore, greater goodwill impairment figures will be negatively correlated with the declining share price.

Previous research has shown this negative correlation between the elimination of goodwill and share prices (Chen, Kohlbeck, & Warfield, 2008; Lapointe-Antunes, Cormier & Magnan, 2009). In line with research conducted by AbuGhazaleh, Al-Hares, and Haddad (2012), this study also aims to provide more information to investors regarding the reporting of goodwill impairment losses. Current studies show that goodwill impairment losses negatively affect the corporate value and share value. Based on previous research, goodwill accounting information with goodwill impairments after IFRS convergence influence corporate market value. Thus, the second hypothesis in this study is:

H_2: Goodwill impairments loss have a negative effect on corporate market value.

Goodwill Amortization Value Relevance and Goodwill Impairments

Accounting for goodwill treatment has undergone dramatic changes since 2000. The US Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) 142 in June 2001 mandating the prohibition of goodwill amortization. IASB followed not long after that by issuing IFRS 3 which became effective starting January 2005, along with mandatory adoption of IFRS conducted by Europe. IFRS 3 stated the deletion of pooling methods and goodwill amortization methods. IFRS 3 requires goodwill to be tested for impairments annually.

Goodwill amortization is a systematic reduction of the goodwill book value. Since the decreasing goodwill through amortization is systematic, the decreasing number may not reflect the real value of goodwill and it can not explain the future cash flow of the company (Moehrle, 2011). When a company conducts impairments test on goodwill, it signaled the investor to act on the goodwill information provided by the management. Therefore, goodwill impairment approach is considered to have more value relevance to corporate market value than the amortization of goodwill. Thus we develop the hypothesis three of our study as follows:

H_3: Goodwill number with impairments approach is more value relevant compared to goodwill with amortization approach.

Research Method

Value relevance in this study uses price models used widely by previous researchers who tested the accounting information ability in explaining corporate market value (Al Jifri, 2009; Lapointe-Antunes, Carmier & Magnan, 2009; Dahmash, Durand & Watson, 2009; Xu, 2011; AbuGhazaleh, Al-Hares & Haddad, 2012). The research variables in this study are book value of equity, earnings before tax, goodwill, goodwill impairments loss, goodwill amortization expense, and corporate share price.

This study uses secondary data presented in the published financial statements obtained from Indonesia Stock Exchange website (www.idx.co.id) or the official website of each company. The date of publication is obtained through The Indonesian Capital Market Institute (TICMI). Historical data of share prices are obtained through the World Investment website (www.duniainvestasi.com) and Yahoo Finance website (finance.yahoo.com). These secondary data are collected from 2009 to 2015 (time series) as well as the cross section as it includes several companies with diverse industries. With time series and cross-section data in this research, then panel data are used to analyze the data.

Population and Sample Research

The population in this study are all companies listed in the Kompas 100 Index in 2009-2015, starting from the period of February 2009 to January 2016. Kompas 100 index is selected as a population because the companies included in the index are large companies that have the possibility of conducting business acquisition which generates goodwill. The period of 2009-2015 is chosen based on the years before and after the IFRS convergence. In 2008, Indonesia experienced an economic crisis that caused the information to be distorted, therefore, the period is determined in 2009-2010 for the period prior to IFRS convergence and the period of 2011-2015 for the period after IFRS convergence. Sample determination technique used in this research is purposive sampling. Table 1 below describes the number of samples used in the study.

Table 1 Number of Sample in 2011-2015 Period

No.	Elimination Process	Total
1	Companies listed the Kompas 100 Index on the IDX in the period of 2009-2015	221
2	Companies that are delisted in the period of 2009-2015	(5)
3	Companies operating in financial sector	(24)
The number of companies that are still listing and non-financial in the period 2009-2015		192
4	Companies that do not have goodwill value at all in 2009-2015 and do not have complete data	(113)
5	Companies that do not consistently present financial statements in rupiah	(16)
6	Companies that experience suspension	(7)
7	Companies that present financial statements in USD currency	(14)
Number of sample companies		42
	Years of research	5
Number of sample data		210

Independent Variable

Market Value

Corporate market value (MV) is proxied by the share price. Corporate market value is a price indicated by how much market willing to pay for the share. The share price used in this study is the closing price on the date of publication of the financial statements. Share price reflects corporate value is derived from Ohlson accounting base valuation model (Ohlson, 1995) and then it is developed based on the market value model by several studies on accounting information value relevance as conducted by Al Jifri (2009), Lapointe-Antunes, Carmier and Magnan (2009), Dahmash, Durand and Watson (2009), Xu (2011), and AbuGhazaleh, Al-Hares and Haddad (2012).

Dependent Variable

Book Value of Equity

Book value of equity (BVE) is used by investors to assess the outstanding or over-priced share price by comparing the book value of equity with fair value of equity. In line with AbuGhazaleh, Al-Hares and Haddad (2012), book value of equity minus goodwill book value is used in this study. The book value of equity is calculated in rupiah per share, therefore, after book value minus goodwill, then it is divided by shares outstanding at the reporting date. BVE is formulated as follows:

$$BVE = \frac{Book\ Value\ of\ Equity - Goodwill\ Book\ Value}{Outstanding\ Shares}$$

Earning Before Tax

Earning (EBT) has been argued to have value relevance in the company's future cash flow (Kothari & Zimmerman, 1995; Ohlson, 1995). Earnings used in this study are consistent with the research conducted by Lapointe-Antunes, Cormier and Magnan (2009) and AbuGhazaleh, Al-Hares and Haddad (2012) who calculated earnings by summing the company's earning before tax plus goodwill impairment loss which is reported as an expense recognized by the company. The value of the earning is then divided by the number of shares outstanding at the date of financial reporting. EBT is formulated as follows:

$$EBT = \frac{Earning\ Before\ Tax + Goodwill\ Impairment}{Outstanding\ Shares}$$

Goodwill

Goodwill (GW) occurs when there is a business combination. Goodwill impaiment test is conducted annually and goodwill should be recorded at its acquisition cost minus accumulated impairment losses if any (PSAK 22). In line with research conducted by Lapointe-Antunes, Cormier and Magnan

(2009) and AbuGhazaleh, Al-Hares and Haddad (2012), the goodwill used in this study is the book value of goodwill in the financial statements. The goodwill is divided by the number of outstanding shares at the financial reporting date. GW can be formulated as follows:

$$GW = \frac{Goodwill\ Book\ Value}{Outstanding\ Shares}$$

Goodwill Impairment Loss

Goodwill impairment loss calculated from the loss of goodwill impairment test. Based on research conducted by Lapointe-Antunes, Cormier and Magnan (2009) and AbuGhazaleh, Al-Hares and Haddad (2012), Goodwill impairment loss (GWIL) used in this study represents goodwill impairment loss reported by the company, then it is divided by the number of outstanding share at the financial reporting date. GWIL is formulated as follows:

$$GWIL = \frac{Goodwill\ impairment\ loss}{Outstanding\ Shares}$$

Goodwill Amortization Expense

Based on PSAK 22 prior to convergence with IFRS, treatment on goodwill is amortized over 5-20 years using the straight-line method. The amortization of the goodwill by the company is reported in the income statements and other comprehensive income. Corporate goodwill amortization expense (GWAM) reported by the company in a positive number is divided by the number of outstanding shares at the financial reporting date. GWAM is formulated as follows:

$$GWAM = \frac{Goodwill\ Amortization\ Burden}{Outstanding\ Shares}$$

Table 2 Variable Operationalization

Variable	Code	Indicator	Prediction
Market Value	MV	The closing share price on the date of the financial statements has been published	
Book Value of Equity	BVE	$\dfrac{book\ value\ of\ equity - goodwill\ book\ value}{\Sigma\ outstanding\ shares}$	+
Earning Before Tax	EBT	$\dfrac{earning\ before\ tax + goodwill\ impairment}{\Sigma\ outstanding\ shares}$	+
Goodwill Book Value	GW	$\dfrac{goodwill\ book\ value}{\Sigma\ outstanding\ shares}$	+
Goodwill Impairment Loss	GWIL	$\dfrac{goodwill\ impairment\ loss}{\Sigma\ outstanding\ shares}$	-
Goodwill Amortization Expense	GWAM	$\dfrac{goodwill\ amortization\ burden}{\Sigma\ outstanding\ shares}$	-

Data Analysis Technique

This research uses quantitative research analysis by using multiple linear regression analysis. Based on the pricing model and accounting value relevance with panel data, the models of regression equations to be analyzed in this study are as follows:

Model 1 - After IFRS Convergence

$$MV_{it} = \beta_0 + \beta_1 BVE_{it} + \beta_2 EBT_{it} + \beta_3 CVGW_{it} + \beta_4 GWIL_{it} + e_{it}$$

Model 2 - Before IFRS Convergence

$$MV_{it} = \beta_0 + \beta_1 BVE_{it} + \beta_2 EBT_{it} + \beta_3 CVGW_{it} + \beta_4 GWAM_{it} + e_{it}$$

Description:
MV_{it} : Share price of i company at t date of publication of financial statements
BVE_{it} : Book value of equity of i company on t date (end of year)
EBT_{it} : Earning before tax of i company on t date
$CVGW_{it}$: Goodwill book value of i company on t date
$GWIL_{it}$: Goodwill impairment loss of i company on t date
$GWAM_{it}$: Goodwill amortization expense of i company on t date
β_0 : Constant, it is the value of Y when the independent variable is 0
β_{1-4} : Regression coefficient
e : Residual error

Statistical Test Method

In this research, the dependent variable is influenced by four independent variables with five years and two years of research year, thus, the multiple regression analysis is be conducted with Stata as the tool (software). Regression method used in this research is Panel Data Regression. There are two Panel Data Regression model that can be used, i.e Random Effect model and Fixed Effect model. Model selection is done through Hausman Test. This research also uses descriptive analysis method to explain the data used in this research. To verify the results of the regression, each data will be tested through the Heteroscedasticity Test, Autocorrelation Test, and Multi-colinearity Test. If there are problems found in the data, then the regression results will be given a treatment first.

After the regression results are obtained, then hypothesis test using P-value significance test and coefficient of determination test are conducted. P-value significance test will be performed twice. First, partial P-value significance test is conducted to know the significance of independent variable influence separately to the dependent variable. Second, simultaneous P-value significance test is conducted to know the significance that all independent variables included in the model have simultaneous influence on the dependent variable.

Table 3 Descriptive Statistics After IFRS Convergence in Period of 2011-2015

Variable	Observation	Mean	Std. Dev.	Min	Max
MV	210	4368.71	10412.9	50	76442
Bval	210	1147.799	1453.183	-437.66	9357.48
Ebt	210	276.1622	566.5604	-613.52	3310.45
Cvgw	210	60.68804	92.73607	0	452.89
Gwil	210	0.516402	1.881937	0	11.37
LMV	210	6.606069	2.75986	-2.30259	11.24429

The coefficient of determination (R^2) is used to see how big the contribution of independent variable to the dependent variable. However, it's better to use the Adjusted Overall R^2 value to see the strength of the variables tested against the independent variable, in this case share price, to assess value relevance. Level of significance used in this research is 1% and 5%. This level of significance is commonly used in social science research.

Result and Discussion

The aim of this research is to investigate the value relevance of goodwill accounting information for companies listed in the Kompas 100 Index in 2009-2015. Based on the research objectives, the author divides the two periods of research conducted on the data used for research.

Descriptive Analysis

Descriptive analysis techniques in statistics aims to explain the overall data, which are the minimum value, maximum value, mean and standard deviation. Below is each research data presented in descriptive manner.

Table 4 Descriptive Statistics Before and After IFRS Convergence in Period of 2009-2010 & 2011-2012

Descriptive Statistics Before IFRS Convergence in Period of 2009-2010					
Variable	Observation	Mean	Std. Dev.	Min	Max
MV	90	2293.374	4796.961	50	25315
BVAL	90	722.6898	1027.057	-965.21	4998.63
EBT	90	242.4323	463.8063	-736.75	2004.58
GW	90	60.21396	105.2105	0	527.69
GWAM	90	5.388681	8.92736	0	43.32
LMV	90	6.533767	1.528748	3.912023	10.13915
Descriptive Statistics After IFRS Convergence in Period of 2011-2012					
Variable	Obs	Mean	Std. Dev.	Min	Max
MV	86	4148.43	10560.15	50	76442
BVAL	86	1074.777	1548.448	-18.78	9357.48
EBT	86	318.23	576.0377	-154.39	3053.45
CVGW	86	45.04512	86.18812	0	441.74
GWIL	86	0.644186	2.162903	0	12.01
LMV	86	6.849369	1.792985	3.912023	11.24429

The minimum goodwill value is zero because there is a sample company that has goodwill in the observation period and then the goodwill becomes zero after impairment is enforced. Similar for goodwill amortization (GWAM) and goodwill impairment loss (GWIL), the minimum value becomes zero if goodwill does not exist anymore. For a minimum EBT value, there is a negative because there are companies that have negative earnings during the observation period. The negative BVAL minimum value is caused by the company which has negative figures, that is Bentoel International Investama (RMBA) in 2014 and 2015.

Selection of Panel Data Regression Model

Panel data regression model conducted by researchers in this research is Panel Data Regression method. Based on Hausman Test, in the data period before IFRS convergence in 2009-2010 and after IFRS convergence in 2011-2015, it shows that the method should be used is Random Effect model while in the data period after the IFRS convergence of 2011-2012 shows that the method should be used is Fixed Effect model. The results of Hausman Test can be seen in Appendix 1.

Classical Assumption Test

Before conducting regression testing using Panel Data Regression approach, researcher perfomed normality, heteroscedasticity, autocorrelation and multicolinearity tests first. The problem of abnormal data distribution has been resolved by transforming the market value dependent variable (MV) into logarithmic form (Log) to become the log market value (LMV). This treatment is conducted because the standard deviation value exceeds the average value. Keep in mind that normal distributed data is not a requirement of Panel Data Regression, but normality problem will cause heteroscedasticity problem. Heteroscedasticity problem test was performed using Breusch-Pagan Test and/or White Test. Heteroscedasticity problem was found in each model used. The Woolridge Test results showed that that there is no autocorrelation problem in the model used. To overcome heteroscedasticity problem, then the model used must use a robust standard error so that the standard error and P-value obtained are valid (Huber, 1967; White, 1980).

Regression Result

After IFRS Convergence in 2011-2015

The equation model generated for the period after IFRS convergence for the period of 2011-2015 is as follows:

$$LMV_{it} = \beta_0 + 0.0002726BVE_{it} + 0.0015372EBT_{it} + 0.0022676GW_{it} + 0.0190282GWIL_{it}$$

Because there is heteroscedasticity problem in the model that can change the value of standard error, then the model must use robust model to get robust standard error. Thus, the results of regression calculations for the

period after IFRS convergence for the period of 2011-2015 are presented in Table 5.

The value of p-value of BVE variable is 0.030, which is less than 0.05, and the direction of the influence is positive, so it can be concluded that partially BVE variable has significant effect on LMV with positive influence direction. The value of p-value of EBT variable is 0.0000, which is smaller than 0.01, and the direction of the influence is positive, so it can be concluded that partially EBT variable has significant effect on LMV with positive influence direction.

The value of p-value of GW variable is 0.089, which is smaller than 0.1, and the direction of the influence is positive, so it can be concluded that partially the GW variable only has a significant weak influence at the 10% significance level on LMV with positive influence direction. The results are somewhat different from previous studies that found a strong relationship between goodwill and LMV, such as on Hamberg and Beisland (2014), AbuGhazaleh, Al-Hares and Haddad, (2012) and Lapointe-Antunes, Cormier and Magnan (2009).

As for goodwill impairment loss (GWIL) value, p-value of GWIL variable is 0.875, which is bigger than 0.1, thus we can conclud that partially GWIL variable has no significant effect on LMV. This result is inconsistent with some previous studies that encountered a significant relationship of goodwill impairment and share prices, as practiced by Hamberg and Beisland (2014), AbuGhazaleh, Al-Hares and Haddad (2012) and Lapointe-Antunes, Cormier and Magnan (2009).

An alternative explanation for non-significant impairment results is that investors do not view the decline in share value as something that significantly affects the corporate value. This may be due to a fall in goodwill value which is too low within 5 years after IFRS convergence. As shown in the descriptive data that the average value of goodwill is 60 while the average in goodwill impairment value is only 0.5. In addition, the number of frequency of impairment over five years is relatively small, only 27 out of 210 observations.

Table 5 Regression Calculation Result After IFRS Convergence in Period of 2011-2015

Robust Random Effects GLS Regression			
lhs	Coefficient	Robust Std. Error	P Value
BVE	0.0002762	0.0001273	0.030**
EBT	0.0015372	0.0003957	0.000*
GW	0.0022676	0.0013338	0.089***
GWIL	0.0190282	0.1207194	0.875
_cons	5.717044	0.2411017	0.000
N	= 210		
R-sq	= 0.1908		
Wald chi2(4)	= 63.85		
Prob > chi2	= 0.0000		

Note: Significance level : * for 1%, ** for 5% and *** for 10%

Table 6 Regression Calculation Result Before IFRS Convergence in Period of 2009-2010

Robust Random Effects GLS Regression			
lhs	Coeffeiient	Robust Std. Err.	P Value
BVE	0.000397	0.000313	0.2050
EBT	0.001298	0.000502	0.0100**
GW	0.002578	0.002088	0.2170
GWAM	-0.011	0.024596	0.6550
_cons	5.829658	0.20022	0.0000
N = 90			
R-sq = 0.4830			
Wald chi2(4) = 46.22			
Prob > chi2 = 0.0000			

Note: Significance level : * for 1%, ** for 5% and *** for 10%

Comparison Before and After IFRS Convergence

The equation model used for the period prior to IFRS convergence for the period 2009-2010 is as follows:

$$LMV_{it} = \beta_0 + 0.000397BVE_{it} + 0.001298EBT_{it} + 0.0002578GW_{it} - 0.011GWAM_{it}$$

Because there is a heteroscedasticity problem in the model that can change the value of standard error, then the model must use robust model to get robust standard error. Thus, the results of the regression calculations for the period prior to IFRS convergence for the period of 2009-2010 are presented in Table 6. The equation model used for the period after IFRS convergence in period of 2011-2012 is as follows.

$$LMV_{it} = \beta_0 - 0.0000732BVE_{it} + 0.0005859EBT_{it} - 0.0001036GW_{it} + 0.0415909GWIL_{it}$$

Because there is a heteroscedasticity problem in the model that can change the value of standard error, then the model must use robust model to get robust standard error. Thus, the results of regression calculations for the period after the IFRS convergence in period of 2011-2012 are presented in Table 7.

Table 7 Regression Calculation Result After IFRS Convergence in Period of 2011-2012

Robust Fixed Effects GLS Regression			
lhs	Coefficient	Robust Std. Err	P Value
BVE	-0.0000732	0.0000499	0.150
EBT	0.0005859	0.0002452	0.021**
GW	-0.0001036	0.0023701	0.965
GWIL	0.0415909	0.0207861	0.052***
_cons	6.736067	0.1357989	0.000
N = 85			
R-sq = 0.4269			
Wald chi2(4) = 20.76			
Prob > chi2 = 0.0004			

Note: Significance level : * for 1%, ** for 5% and *** for 10%

Comparing regression results before and after IFRS convergence, only EBT has a significant effect on share prices for the two comparable periods. While GW and BVE both have no significant influence with share prices in both periods of comparison. For the period prior to the IFRS convergence, the regression results indicate that the goodwill amortization value has no significant effect on share value, in accordance with previous studies which also failed to find an influence between goodwill and share price (Jennings, LeClere & Thompsonl, 2001; Moehrle, Reynolds-Moehrle & Wallace, 2001). The test result of goodwill impairment shows an interesting thing. In the regression test for five years after the IFRS convergence (2011-2015), goodwill impairment had no significant correlation. However, from the regression results in the adoption period and a year later, goodwill impairment had significant results. This indicates that companies utilize the year of IFRS adoption (2011) to record goodwill impairment.

Please note that before IFRS 3 was adopted in 2011, a company is not prohibited from impairing goodwill if impairment indications were evident in accordance with PSAK 48. The accounting treatment for goodwill prior to IFRS convergence was systematically amortized over the economic life of goodwill, but if there were any indications of impairment, the companies should conduct goodwill impairment. After the 2011 IFRS convergence, goodwill amortization was prohibited and companies should test annual impairment. Adoption of new standards requiring the impairment test may provide incentives for companies to record overdue impairments in the adoption year.

The number of companies that recorded impairment increased dramatically in 2011 compared to the following years. In 2011, the number of companies book impairment loss was 9 companies, while in 2012, 2013, 2014 and 2015, companies which recorded goodwill impairments loss were only 4,5,4,5 companies respectively. If goodwill value was close to its fair value before the 2011 adoption year, then goodwill impairment loss in 2011 and 2012 should not have been significant, this is in line with the previous statistical test with the five year period (2011-2015). Instead, goodwill impairment loss in the early adoption year shows that the number of companies book goodwill impairment was significantly greater than years after adoption.

The positive GWIL coefficient was unexpected because the hypothesis was negative, meaning that the bigger the goodwill impairment loss, it would have a negative impact to share price. Goodwill impairment loss reduces the value of goodwill which then decrease the total assets of the company. The total asset decrease should have an unfavorable effect on market prices. Negative correlation to goodwill impairment with share price has also been exhibited by previous studies such as in Hamberg and Beisland (2014), AbuGhazaleh, Al-Hares and Haddad (2012) and Lapointe-Antunes, Cormier and Magnan (2009).

An alternative explanation for positive GWIL correlation is that it indicates that investors are appreciating the company's actions to clean up assets from impaired goodwill. Goodwill impairment can also generate greater ROA figures in the future, ceteris paribus. Investors anticipate the increase in ROA in the future by giving a positive reaction to goodwill impairment recorded by the company, especially in the early period of IFRS 3 adoption.

Conclusion

Based on the calculation and discussion for the period after IFRS convergence in 2011-2015, it shows that the goodwill value of companies in the period has a significant influence on corporate market value with a positive influence direction. Meanwhile, corporate goodwill impairments loss in the period after IFRS convergence during 2011-2015 has no significant effect on corporate market value. In the comparative period before and after the IFRS convergence, the goodwill amortization has no significant effect while goodwill impairment after IFRS convergence has a significant positive effect on share prices. This indicates that managers are utilizing the year of adoption of a new standard to record goodwill impairment.

This study supports the efforts of countries such as Japan and Italy that suggest IASB provides other accounting policy options in addition to goodwill impairment. Japan is the only IFRS supporting country that maintains goodwill amortization in its accounting standards while most other IFRS supporting countries have banned the goodwill amortization. The IASB meeting in May 2017 discussed that suggestion and also discussed when is goodwill impairment procedures in IAS 36 (PSAK 48) can be simplified. To consider the proposals of several countries on some goodwill accounting options, the IASB is considering conducting research in this area.

This study has limitations in generalizing the results of the research because it only examines the phenomenon in one country. When adopting IFRS 3, Indonesia also decided to use a modified retrospective transition provision in which the goodwill balance in 2011 was locked and considered to be a new value for subsequent testing of impairment in the following year. This can be different from other country's transitional requirement when they adopt IFRS 3 and have retrospective transition policy. The subsequent research development may also consider looking at goodwill and intangible assets as a whole because, in 2011, those accounting changes were also significant for intangible assets.

Acknowledgement

Appendix

In the period after IFRS convergence which is 2011-2015, in determining method between pooled least square and fixed effect, then Chow test is used. Results of data using Chow test is listed in Table 8.

Table 8 Results of Chow Test

Test Summary	Statistic	Prob.
Cross-section F	9.655499	0.0000

Table 9 Results of Hausman Test

Test Summary	Chi-Sq. Statistic	Prob.
Cross-section random	91.227730	0.0000

Based on the above table, it obtained F_{count} value of 9.655499 and prob value of 0.0000. Due to prob. that is smaller than α = 5% or 0.05, then we must reject H_0 which states that we should choose the PLS technique or use the common effect model. So in this research, it should use fixed effect model. However, we must perform Hausman test to determine the method between random effect and fixed effect in order to get a more appropriate model after doing F test or Chow test. From the results of the test using Hausman test, the results obtained are as in Table 9.

Based on the table above, it obtained Chi-Square value of 91.227730 and prob. of 0.0000. Due to prob. that is smaller than α = 5% or 0.05, then we must reject H_0 which states we have to use the random effect model. So in this research should use fixed effect model. The fixed effect model is suggested in the panel data model having the time (t) greater than the number of individuals (i). In the comparative period before and after IFRS convergence with the period of 2009-2010 and 2011-2012 also need to be tested which model is better to be used to compare the two data. The two tables below are the results of data processing using Chow and Hausman test (see Tabl 10).

The table above is the result of testing on the period before IFRS convergence of 2009-2010 which shows the result of statistic F_{count} of 3.048407 with prob 0.0006 below α = 5% or 0.05 and at Chi-Square value equal to 0.844200 with prob. of 0.9324. Based on the test results, the model that should be used is a random effect model because it rejects H_0 on Chow test and rejects H_0 on Hausman test. Random effect is a method in which panel data has a number of time (t) which is smaller than the number of individuals (i) and this method also explains that the individual is larger than the number of coefficients including intercept. The comparison data will use the random effect method so that it will be comparable to each other.

Table 10 Results of Chow and Hausman Tests

Test Summary	Statistic	Prob.
Cross-section F	3.048407	0.0006
Test Summary	**Chi-Sq. Statistic**	**Prob.**
Cross-section random	0.844200	0.9324

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