The Value Relevance of Goodwill: The Case of Selected Business Combinations in the Philippines

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Abstract – **Goodwill, being one of the most controversial assets, became a source of debate and gave rise to studies concerning its value relevance. In 2015, the International Accounting Standards Board (IASB) began reviewing International Financial Reporting Standards (IFRS) 3, Business Combinations, due to the drawbacks observed with the impairment method. This study aims to identify the most appropriate approach for the initial recognition and subsequent measurement of goodwill by examining its value relevance under three approaches – direct write-off, amortization and impairment – in selected business combinations in the Philippines. To do so, Ohlson valuation model and panel regression was utilized for a total sample of 27 publicly listed companies. The research findings showed that there is no significant difference among the three approaches although the amortization method provides the highest predictive accuracy in relation to market value. Thus, the researchers concluded that although investors take into account the accounting information provided by goodwill and this is incorporated in the stock prices, as evidenced by the high R-squared values under the three methods, they do not find one method more value relevant than the other. However, the researchers further recommend that IASB revisit and reconsider the application of the amortization method in accounting for goodwill. Adoption of IFRS is a global phenomenon that involves feedback from all over the world. This study serves as the Philippines' contribution, in achieving IASB's goal of having uniformity and harmony in its standards and in simplifying the accounting for goodwill.**

Keywords: **goodwill, value relevance, direct write-off, amortization, impairment, Ohlson valuation model**

I. INTRODUCTION

The controversial nature of purchased goodwill has been a source of debate among accounting practitioners and scholars for more than a century (Baboukardos & Rimmel, 2014). Goodwill has been defined by many, but no single definition can clearly explain it. Some defines it as the benefit and advantage of good name, reputation and connection of a business or even an attractive force that drives consumers while others see it as something financial in nature (Rimando, 2012). Currently, IFRS 3, Business Combinations provides an acceptable definition of goodwill, which is based on accounting treatment for acquisition of an entity. IFRS 3 defines goodwill as the excess of the purchase price paid by the acquirer over the fair value of the acquiree's net assets (IASB, 2004).

Aside from goodwill's definition, accounting treatment for goodwill has been continuously evolving. Before IFRS 3, goodwill was initially recognized as an asset and written off over a period not exceeding 20 years through profit or loss account (IASB, 1998). IFRS 3 retains it as an asset with no write off unless a permanent diminution in value becomes evident (IASB 2004). There was even a time when the excess of consideration given over the fair value of the net identifiable assets received from an acquired company was directly written against profits or accumulated reserves immediately (Sheridan, 2000).

With these discrepancies in the definition, measurement and subsequent measurement of goodwill, the debate is mainly centered on adopting the most appropriate treatment for goodwill to make the financial information relevant to the entity's stakeholders, considering that most often the recognized goodwill represents the single largest item on a firm's statement of financial position (Boennen & Glaum, as cited in d'Arcy & Tarca, 2018).

In 1989, the Accounting Standards Committee (ASC), the body that used to develop and promulgate accounting standards in United

Kingdom, through its SSAP 22, Accounting for Goodwill and Intangible Assets, permitted both the amortization and direct write-off method in accounting for goodwill. The ASC then encouraged the use of the latter (as cited in Sheridan, 2000). Under the direct write-off approach, goodwill is recognized as an immediate expense, not as an intangible asset, in the period of combination. This approach was supported by the Accounting Standards Board of Japan because of ease in accounting because it does not require specific year-end adjustment (Accounting Standards Board of Japan, 2017). However, IASB believes that goodwill qualifies as an asset because writing off goodwill immediately would be inconsistent with the cost principle and deviates from the way other non-financial assets are measured on initial recognition (Dodge, 1991).

After a few years of continuous discussion on the complexity of goodwill, IASB (1998) published IAS 22, Business Combinations which then required goodwill to be measured using the amortization approach. Under then IAS 22, goodwill is recognized as an intangible asset at the date of business combination and decrease in value over time through the process of amortization, similar to amortization of other intangible assets. (IASB, 1998). It was seen to be the more appropriate accounting method for goodwill for it allows systematic and rational allocation and matches its consumption with the benefits derived. The amortization of goodwill limits its size in relation to total assets, therefore providing balance between conceptual soundness and operationality at an acceptable cost (Wiese, 2005). However, this method's major drawback is in predicting an accurate and objective useful life (IASB, 2004). The impossibility to predict accurately the useful life of goodwill makes the straight-line amortization of goodwill over an arbitrary period a less faithful representation of the pattern of decline (Financial Accounting Standards Board, 2001). Also, according to Fazal (2012), different approaches to amortize or simply different rates of amortization may cause financial statements of an entity to be incomparable. Amidst these drawbacks, non-amortization of goodwill based on the premise that it has an infinite life is strictly not permitted by IAS 22.

At present, IFRS 3, Business Combinations (IASB, 2004), which superseded IAS 22, Business Combinations (International Accounting Standards Committee, 1998), together with IAS 36, Impairment of Assets (IASB, 2004) governs the initial and subsequent accounting treatment for goodwill. IFRS 3 and IAS 36 mandate the use of the impairment method (IASB, 2004). IFRS 3 prohibits the amortization of goodwill over an arbitrary period, since it was believed that it fails to provide useful information to the users of financial statements. Instead, goodwill is capitalized as an intangible asset subject to annual impairment test in accordance with IAS 36, Impairment of Assets (IASB, 2004). According to Li, Amel-Zadeh and Meeks (2010), impairment approach represents a qualitative change in the goodwill in contrast to the amortization approach. It is seen as advantageous because it represents the release of information that is not routinely available in the market, reduces information asymmetry and investors' uncertainty, and enables managers to provide information regarding goodwill that is value relevant to investors. On the other hand, the impairment method is seen to be costly and time consuming. Impairment criteria provided by the standard are drafted in such a way that leave significant room for managerial discretion, interpretation, judgement and bias (Fazal, 2012).

The impairment method is undergoing review by the International Accounting Standards Board (IASB), the body that develops and approves International Financial Reporting Standards (IFRSs). As early as 2015, the IASB began its Goodwill and Impairment Research Project (IFRS Foundation, 2015) as it continuously reviews the provisions of IFRS 3. This project stems from the drawbacks observed with the current practice with the goal of simplifying the accounting for goodwill and reducing the costs of accounting for goodwill without losing relevant information. The Board found that impairment tests done in compliance with IAS 36 are ineffective, flawed, and expensive (IFRS Foundation, 2015). It believes that impairment losses are recognized too late, i.e. there are timing problems which diminish the usefulness of information and provide investors with information that has weak confirmatory value (IFRS Foundation, 2015). The Board also found that the impairment method involves calculations that are judgmental, subjective, and estimated; thus, its members are deliberating about reconsidering amortization of goodwill, or even allowing an immediate write-off (IFRS Foundation, 2015).

In December 2017, amortization method was given sole attention as the Board tried to set it out as an alternative possible approach for goodwill. Key arguments that both supported and opposed the

moving back to amortization was laid down (IFRS Foundation, 2017). At the end, the arguments set out for not moving back to amortizing goodwill was temporarily supported. However, in October 2018, the IASB once again revisited the implications of implementing amortization as it reviews one of its tentative decisions to pursue the objective of reintroducing amortization and/or provide relief from the mandatory annual quantitative impairment testing of goodwill by modifying it (IFRS Foundation, 2018).

At present, IASB has no definite conclusion whether to replace impairment method with either amortization or direct write-off approach as the most appropriate accounting treatment for goodwill. The board members are still in the process of conducting further reviews to simplify the complexities of accounting for goodwill.

The purpose of this study is to enrich the ongoing debate and the IASB Research project by assessing which among the accounting treatments discussed would provide the most value relevant information relating to goodwill. The objective, therefore, is to determine the approach that will provide a book value that has the ability to closely affect the firm's market value using the Ohlson valuation model. To propose a possible answer to this issue, this paper attempts to examine the value relevance of goodwill impairment, goodwill amortization, and goodwill direct write-off in selected business combinations in the Philippines to establish the most relevant method in accounting for goodwill.

This study contributes to existing researches on the most value relevant accounting treatment of goodwill. Moreover, this study provides feedback for accounting standard-setting bodies regarding the value relevance of accounting information as a result of compliance with the standards issued in the Philippine context. This will also help them in their assessment on whether an alternative treatment will provide more relevant accounting figures and improve prevailing standards regarding accounting for goodwill. With this study, the Philippines may have a contribution to the ongoing debate and deliberations regarding the accounting treatment for goodwill.

To determine which among the three approaches of accounting for goodwill (i.e. direct write-off, amortization and impairment methods) is the most value relevant, the researchers restated available financial statements of publicly listed companies in accordance with the principles underlying each method. This study also utilizes the Ohlson valuation model for regression (Van Hulzen et al., 2011). Variables such as net income, book value, and respective goodwill variables – expense, amortization and impairment – were then derived from restatements. Market value, the dependent variable, which is represented by stock prices at year end, was obtained from a legitimate online source. All of these variables were deflated by the number of shares outstanding before applying to the regression equation.

Initially, the researchers hypothesized that there is significant difference among the different accounting treatments for goodwill due to their differing nature and application, particularly the timing and recognition of the reduction in goodwill (Eloff & de Villiers, 2015). The researchers further hypothesized that the three approaches would result to varying degrees of value relevance and that one method will be distinguished to be the most appropriate accounting treatment for goodwill (Omarjee & Garnett, 2017).

Theoretical Framework

The theoretical basis of this paper is the Conceptual Framework for Financial Reporting (IASB, 2018) which highlights the relevance and faithful representation of the information disclosed by business companies. In addition, this paper is also anchored on four accounting standards that focus on the recognition and subsequent measurement of goodwill: IFRS 3, IAS 36, SSAP 22, and IAS 22.

Figure 1
IASB's Conceptual Framework for Financial Reporting: Fundamental Qualitative Characteristics
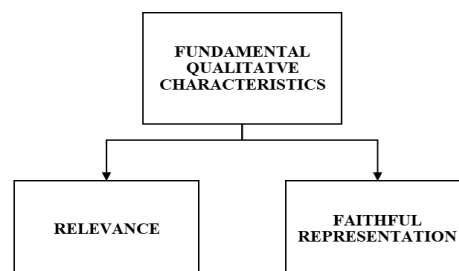

Conceptual Framework for Financial Reporting

The Conceptual Framework for Financial Reporting (IASB, 2018) specified two fundamental qualitative characteristics of useful information: relevance and faithful representation. Information is deemed relevant if it is capable of making a difference to the decisions made by users. In addition, information must faithfully represent the

substance of what it purports to represent (IASB, 2018).

Figure 2

The different approaches in the initial recognition and subsequent measurement of goodwill
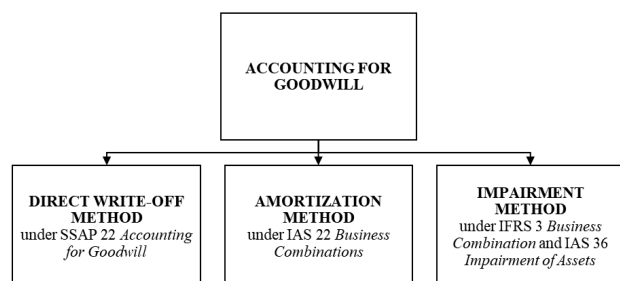
SSAP 22, Accounting for Goodwill

This standard is taken from the old UK GAAP in 1989. SSAP 22, Accounting for Goodwill, issued by the Accounting Standards Committee (as cited in Dodge, 1991), permits the amortization of goodwill. However, it recommends the elimination of the purchased goodwill from the accounts immediately by debiting or reducing revenue reserves. Using this method, goodwill does not appear as an asset in the balance sheet and it will not have an effect on the profit for the subsequent years.

IAS 22, Business Combinations (Superseded by IFRS 3)

IAS 22, Business Combinations (IASC, 1998) states that goodwill acquired in business combinations should be recognized as an asset and subsequently amortized over its useful life. The maximum useful life of goodwill is 20 years. However, in rare cases wherein the useful life exceeds 20 years, goodwill is still amortized over its useful life and becomes subject to the general impairment requirements of IAS 36. IAS 22 does not permit non-amortization of goodwill based on an argument that is has an infinite life.

IFRS 3, Business Combinations

The prevailing standard for the measurement of goodwill is IFRS 3, Business Combinations (IASB, 2004), which states that goodwill arises when a business entity acquires another entity for an amount greater than the fair market value of the net identifiable assets. The amount recorded in the books of the business is the excess of the amount paid from the fair market value of the net identifiable assets of the acquired entity. According to IFRS 3 (IASB, 2004), the acquired goodwill in a purchase business combination is not subject to

amortization. However, goodwill is vulnerable to impairment. A corresponding impairment loss must be recorded in case the goodwill is assessed to be impaired.

IAS 36, Impairment of Assets

IAS 36, Impairment of Assets (IASB, 2004) is the current standard which governs the impairment practices for assets to ensure that no asset is measured at more than its recoverable amount. This standard is also applied to goodwill acquired in business combinations and other intangible assets. Entities are required to conduct impairment tests on assets that exhibit indications of impairment. However, for goodwill, intangible assets with indefinite useful life, and those that are not yet available for use, entities are required to conduct annual impairment tests, regardless of the presence or absence of any indicators.

Literature Review

The revised Conceptual Framework for Financial Reporting (IASB, 2018) cites relevance and faithful representation as the two fundamental qualitative characteristics that make information useful. Information is said to be useful if it can affect decisions made by the users and if it faithfully represents the substance of what it purports to represent (IASB, 2018). Consequently, only financial information that satisfies these two criteria is presented on the financial statements. When the information captures and summarizes the firm's value, it is said to be value relevant (Suadiye, 2012).

Value relevance, as a concept, is based on relevance and reliability (Uwuigbe, Uwuigbe, Jafaru, Igbinoba, & Oldadipo, 2016). It is attained through the ability of accounting figures to affect or determine stock market values (Beest, Braam, & Boelens, 2009; Suadiye, 2012; Omokhudu & Ibadin, 2015). If there is no statistical association between accounting information disclosed in the financial statements and the firm's value, it cannot be considered value relevant; thus, one of the primary objectives of financial reporting is not achieved (Beisland, 2009).

According to Felix and Rebecca (2015), there are different ways of interpreting the value relevance theory and one of these is the fundamental analysis view. This view focuses on the usefulness of accounting information in equity valuation. Accounting values are deemed to be relevant for measuring the companies' future value creation and growth. The investors' expectations and beliefs

about the companies' future are reflected on the market value of a firm's stock on the market (Felix & Rebecca, 2015). The equity book value and the market value of a firm can have a correspondence if accounting information provides a comprehensive description of the firm's value (Runsten, as cited in Felix & Rebecca, 2015).

Existing related literature examining the association between financial information and stock price dates back to the late 1960s (Ball & Brown, as cited in Mortensen, 2009). However, the term "value relevance" was first used to describe this relationship by Amir, Harris, and Venuti in 1993 (as cited in Mortensen, 2009). Value relevance studies assess how well a particular account and amount provides valuation information and the total market reaction to these accounting figures (Hasan, 2015; Uwuigbe et al., 2016).

Value relevance studies operationalize the concept of relevance by assessing the degree to which information presented in the financial statement is associated with value (Omokhudu & Ibadin, 2015). Mortensen (2009) identifies two types of value relevance research studies. Incremental association studies consider a variable value relevant if it has the ability to explain stock market value and if its coefficient in the regression is significantly different from zero. Similarly, in 2015, Omokhodu and Ibadin conducted a study sampling 940 firm-years to investigate the incremental value relevance of disaggregated accounting information in the Nigerian context. Although this type of study comprises the majority of existing value relevance literature, the present study uses relative association study as its research design. Relative association studies examine the degree of association between alternative accounting measurements and stock market (Mortensen, 2009; Alkali & Lode, 2016). Additionally, Mortensen (2009) mentions the examination of the relationship between stock market values and balance sheet items valued under two different standards as an example of relative association study.

Majority of the existing value relevance literature reviewed by the researchers used the Ohlson model developed in 1995 (Yamaji & Miki, 2011; AbuGhazaleh, Al-Hares & Haddad, 2012; Alhiyari, Amran & Latif, 2016). The Ohlson model relates book values with the market value of the company (Van Hulzen P., Alfonso, L., Georgakopoulos, G., Sotiropoulos, I., 2011). In 2014, Tsalavoutas and Dionysiou used the Ohlson model to investigate the implications of mandatory disclosure requirements and whether the level of compliance affects the value relevance of accounting information. Alhiyari, Amran and Latif (2016) used the same model to test their hypothesis. Applying panel regressions analysis on 533 listed companies, results showed that investors do not find goodwill value relevant. In contrast to this, Yamaji and Miki (2011) found a significant positive relationship between goodwill and stock prices using the Ohlson model, establishing the value relevance of goodwill. Alkali and Lode (2016) posited that the varying results are an outcome of the differences in context. Bagudo, Manaf and Ishak (2015) argued that feedback from all over the world is necessary, since adoption of IFRS is a global phenomenon and the standards aim to promote uniformity. Very limited studies regarding the value relevance of goodwill under the three approaches in the Philippine context had been published, to the researchers' knowledge. The present study will contribute to existing literature in this regard using the Ohlson model of value relevance (Van Hulzen et al., 2011), in congruence with the majority of the prior empirical studies reviewed in this research.

In 2007, Lako argued that the conclusions of previous studies were not conclusive regarding the value relevance of financial statement information (FSI) to the stock market over time because they did not consider the Efficient Market Theory (EMT) as valuation basis. The proponents of this theory, Malkiel and Fama, argue that the price of an asset must be immediately updated based on new fundamental information obtained (as cited in Fakhry, 2016). This theory holds the key assumptions made in neoclassical economics: that the market is perfectly competitive, and that market participants are rational in making decisions.

Existing value relevance studies that applied the Ohlson valuation model used closing stock prices at year-end, while others used closing stock prices 3 months after the reporting date. To fill the gap Lako (2007) noted regarding previous value relevance studies, the current study made use of year-end stock prices to incorporate EMT in addition to the Ohlson model of valuation. He further added that the two criteria commonly used to measure value relevance are the value of the estimated coefficient of each financial statement variable, and the coefficient of determinant R^2 and Adjusted R^2. For the purpose of this paper, value relevance is measured using the latter criterion, which is the coefficient of determinant, R^2.

Spacek (as cited in Omarjee & Garnett, 2017) stated that goodwill should be written off immediately at the time of acquisition because he perceives that amortization and capitalization of goodwill creates an arbitrary allocation which results to unreliable income determination. Furthermore, Sheridan (2000) argued that since internally generated goodwill is not normally recognized as an asset in the balance sheet, it would not be logical to account for goodwill as such simply because it was purchased. A paper by Dunne and Rollins (1992) tackled the international differences in accounting for goodwill for financial reporting and tax purposes. The researchers saw the situation wherein US firms are at a disadvantageous position in bidding with the British firms because during that time the British firms directly wrote-off their goodwill, while the US firms annually amortize theirs. British firms do not penalize their future profits unlike the US firms which are required to amortize goodwill without the benefit of a tax deduction. However, they found out that the incremental future cash flows between these two treatments only differ by small amount. Furthermore, this difference lies on the different tax treatments and not on the different approaches.

Later studies contradict the previous defenses of Sheridan (2000). Petersen (2007) in his examination of the perception of Danish investors on the reported goodwill strongly confirmed that goodwill resulting from business combinations is perceived as an asset. Furthermore, Omarjee and Garnett (2017) stated that goodwill should be recognized as an asset because investors perceive that future economic benefits are associated with it, thus, denying the use of the direct write-off approach of recognizing goodwill.

Practically, the goodwill recognized in a business combination will be supported and be replaced by internally generated goodwill, an element that is not recognized as an asset in the financial statements. Hence, goodwill that is recognized must be amortized over time and soon be eliminated in the financial statements. Other reasons include the fact that of goodwill being paid for and so, sooner or later, it should have an impact on profit or loss; and amortizing goodwill would also decrease the volatility of profit or loss when compared to an impairment model. (Yamaji & Miki, 2011)

One of the prominent theories that pursued to explain goodwill is PD Leake's Super-Profit Theory (1921) which defined goodwill as the right that arises from different efforts intended to seek profit and increase value (as cited in Ratiu & Tudor, 2013).

This theory explained that there is an amount by which the revenue will increase called the 'super profit' and will exceed all the economic expenditure incidental to its production. Leake's suggestion of goodwill being written off against acquirer's future earnings was the forerunner of the amortization of goodwill practice. Paton and Littleton (as cited in Ratiu & Tudor, 2013) supported this theory noting that goodwill is merely an advance payment for the part of income or additional cash flows which will be earned in the future as a result of the business combination.

Currently, IFRS 3 states the bottom-up perspective of goodwill, meaning the attention is given to goodwill's components rather than its measurement. Furthermore, IAS 36, Impairment of Assets, explains determination of the recoverable amounts of individual asset in computing for the goodwill impairment. If it is not possible to determine the recoverable amount of individual asset, the recoverable amounts of cash generating unit is determined (Ratiu & Tudor, 2013).

Majority of the previous literature made a comparison of the amortization and impairment approach in terms of the management behavior (Dunne & Rollins, 1992; Ojala, 2007; Li ,Amel-Zadeh, & Meeks, 2010; Van Hulzen et al., 2011; Hamberg & Beisland, 2014; Eloff & de Villiers, 2015; Peristeris, 2016; Nguyen, Nguyen & Rahman, 2015). An examination of reliability of reported goodwill and identifiable intangible assets from the years 1994 -2003 using amortization method under the Australian GAAP was conducted by Dahmash, Durand and Watson in 2009. The information from average Australian companies show that the goodwill reported is somehow biased. Goodwill tends to be reported conservatively while identifiable intangible assets aggressively (Dahmash, Durand & Watson, 2009). However, after the implementation of the impairment approach for goodwill, there is an increase in the allocation of purchase price to goodwill and that firms took advantage of the transition in increasing their profitability since there is a decrease of writing-off goodwill posing the opportunism behavior as concluded by Shalev, Zhang I. & Zhang Y. (as cited in Bugeja & Loyeung, 2015). Because goodwill is not amortized, the likelihood of overallocation increases; this is the negative effect of the departure from the amortization approach (Bugeja & Loyeung, 2015). A study in 2013 by Abdul Majid stated that 14% of the sample was found to be exploiting managerial opportunism in reporting goodwill impairment

losses. The study found that the accounting choices related to goodwill impairment are mostly exercised by different companies with different motives such as earnings smoothing and incidence of the change in chief executive officer (Majid, 2013).

This was further explained by Bepari and Mollik (2017) in their examination of the impact of the adoption of IFRS 3. The researchers argued that there is a decline in conservatism caused by the change in accounting for goodwill from the amortization approach to the impairment approach because the frequency of write off and the write off amounts have decreased under the impairment approach. The results of their study suggest that firms do not record impairment losses proportionate to the decline in the firm's market value. Moreover, the impairment approach to goodwill resulted to inflated goodwill balances (Bepari & Mollik, 2017). Recently, Friberg and Johansson (2018) said that manager's possibility to improve future earnings or commonly called "Big Bath" accounting practice was found to influence the amount of goodwill impairment loss recognized. The negative change in the financial performance for firms listed on OMXS does not have an impact in the amount of goodwill impairment but the negative change in the operating cash flow, has an impact on the amount of reported goodwill impairment thus the aim of IAS 36, Impairment of Assets is reflected among firms listed on Nasdaq OMXS (Friberg & Johansson, 2018).

The association of the goodwill values and the accompanying expenses or earnings to the market value (i.e. stock prices) resulting from the different treatments was also investigated in previous literatures.

The amortization expense disrupts the significance of the earnings reported for the period and does not explain the pattern of changes in share prices to Jennings, Leclere and Thompson (as cited in Ojala, 2007). Contrarily, Henning and Shaw (as cited in Ojala, 2007) determined that the amortization period used is a reliable predictor of the acquisition's success with regards to earnings changes and future stock performance. Ojala, (2007) added that capitalized goodwill, amortization of goodwill, and impairment write-offs are found to be more relevant for firms using short amortization period of 5 years or less than firms using long amortization period of more than 5 years. The researcher concluded that short amortization periods better reflect the economic life of the underlying assets. This suggests that the practice of the amortization of goodwill provides value relevant

information for investors. On the other hand, Van Hulzen et al. (2011) expressed that investors do not find impairment expense more useful in valuing share prices therefore it does not affect their decision making. AbuGhazaleh, Al-Hares and Haddad (2012) reached a different conclusion. Results of their study reveal that there is a negative association between the goodwill impairment losses and the market value which depicts that investors indeed impairments as a reliable measurement of the decline in the value of goodwill. Van Hulzen et al. (2011) further added that impairment expense is deemed timelier than amortization because impairment decreases the gap between the actual decline of the value of goodwill and its recognition in the financial statements. However, Abdul Majid (2013) found from their empirical study that the timing of the reporting of goodwill impairment losses on the income statement, companies' motives in measuring goodwill impairment losses, and companies' motives in recognizing zero goodwill impairment are bugejaevidences that collectively justify managers making accounting choices that conflict with companies' economic factors.

Goodwill, being one of the most controversial assets in the balance sheet (Ratiu & Tudor, 2013), gave rise to a lot of studies examining the value relevance of goodwill.

The study of Bugeja and Gallery (2006) resulted to a conclusion that investors view newly-acquired goodwill as value relevant but as time goes by, goodwill loses its information content. Thus, investors do not consider older goodwill as an asset. Petersen (2007) stated that goodwill amortization is not considered an expense and not a good indicator of the change of value of the underlying goodwill asset. Petersen noted that even if there is no direct evidence the mixed findings may suggest that impairment may be a relevant alternative. However, Yamaji and Miki (2011) concluded that earnings before amortization are more relevant than earnings after amortization but goodwill amortization values taken together are useful for assessing stock prices. Meanwhile, AbuGhazaleh, Al-Hares and Haddad (2012) found that impairment losses are incorporated in the investors' firm valuation assessments; concluding that the reported goodwill values are value relevant. It was further supported by Cheng, Peterson and Sherrill (2015) on their study of the impact of goodwill impairment losses on stock prices after the adoption of impairment method from amortization method. The paper indicated that impairment of goodwill has negative effect on stock

prices in a short-term perspective but there is positive effect on stock prices in the long-term perspective (Cheng, Peterson & Sherrill, 2015). A different study found that fixed systematic amortization seems to be inadequate in order to completely reflect the performance of firms (Nguyen, Nguyen, & Rahman, 2015). Furthermore, Eloff and De Villiers (2015) concluded that goodwill under IFRS 3 has a positive and statistically significant correlation with the market value. They concluded that the shift in the measurement of goodwill to IFRS 3 is more value relevant to capital market participants in South Africa than goodwill under IAS 22; IFRS 3 provides better measurement of the economic value of goodwill. Omarjee and Garnett (2017) supported this with a study resulting to a conclusion that total net goodwill is value relevant for both the pre-IFRS and post-IFRS periods despite the changes in the standards but post-IFRS increased the relevance of goodwill. The researchers noted that a possible reason why total net value of goodwill is relevant is because IFRS3 eliminates the amortization of goodwill (Goodwin et al., as cited in Omarjee & Garnett, 2017). Instead, goodwill is impaired when the need arises thus eliminating the arbitrary annual amortization. Findings of Bepari and Mollik (2017) also suggest that the adoption of the impairment approach increased the value relevance of goodwill in the market. This is because impairment approach allows firms with higher (lower) investment opportunities to maintain (reduce) the goodwill balances in congruence to their economic investment opportunities, and managers take this opportunity to improve the alignment of goodwill reporting with its underlying economic attributes (Bepari & Mollik, 2017). However, Amel-Zadeh, Faassee, Li and Meeks (as cited in d'Arcy & Tarca, 2018) reported that there is a decline in the value relevance of impairment expense while the value relevance of prior goodwill increased.

Conceptual Framework

Figure 3 *The relationship between the approach used and the value relevance of goodwill*
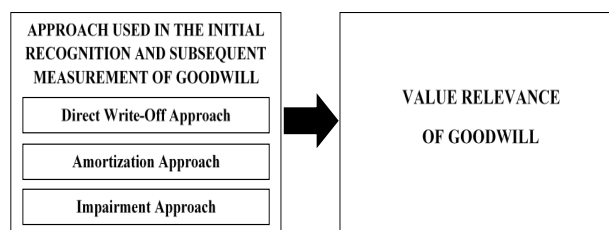
Under IFRS 3, Business Combinations, goodwill is initially recognized as the difference between (1) the sum of the (a) value of the consideration transferred, (b) amount of the non-controlling interest, and the (c) fair value of previous equity interests, in cases of business combinations achieved in stages, and (2) the fair value of the identifiable net assets at the date of acquisition. This equation is summarized in the table below.

Figure 4 *Equation for initial recognition of goodwill (IASB, 2004)*

> Consideration transferred + Amount of non-controlling interests
> + Fair value of previous equity interests – Net assets recognized =
> **GOODWILL**

For its subsequent measurement, IAS 36 prohibits amortization and requires firms to test goodwill for impairment annually or when there is an indication of impairment. In this study, the researchers restated the financial statements of selected business combinations in the Philippines to determine the amounts that would appear on the Statement of Financial Position and Statement of Comprehensive Income had the amortization approach and direct write-off approach been used instead, and examine the association between the methods used in the initial recognition and subsequent measurement of goodwill to its value relevance.

The researchers performed a regression analysis based on the Ohlson model of valuation to determine the value relevance of goodwill under the three approaches.

Hypotheses and Model

The paper investigates the value relevance of the book values that results from applying the three different accounting methods of goodwill. The researchers performed restatement of financial statements within the 5-year period from the date of acquisition and utilized the Ohlson valuation model to arrive at the variables used for the regression analysis.

Majority of the existing value relevance literature reviewed by the researchers used the Ohlson model developed in 1995. The Ohlson model relates book values with the market value of the company (Van Hulzen et al., 2011). The regression formula of Ohlson is as follows:

$$MV_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 NI_{it} + e_{it}$$

Where:

$MV_{i,t}$ is the market value for company i at time t

$BV_{i,t}$ is the book value of equity for company i at time t

$NI_{i,t}$ is the net income for company i at time t

$e_{i,t}$ is the error term

One major advantage of the model is that extra variables can be easily added to the equation. Since the market value is defined as a function of the book value of equity and earnings, these variables with an additional variable representing each of the method are used in order to investigate the value relevance of different subsequent treatments for goodwill. Each method will then be analyzed using statistical tests to examine how the book values can affect the market values. Thus, the researchers hypothesize the following for the three goodwill accounting methods.

H1: After restating the financial values, the book values resulting from the impairment method of accounting for goodwill is the most value relevant compared to amortization and direct write-off methods.

The method will be tested if each will yield significantly different market values when Ohlson valuation model is utilized. In line with this, the researchers hypothesize:

H2: There is significant difference on the predicted market values under the three accounting treatments for goodwill.

II. RESEARCH METHOD

The population comprises publicly-listed companies in the Philippine Stock Exchange (PSE) with recognized goodwill, excluding firms in the financial and insurance sectors since these highly-regulated industries adhere to different reporting frameworks and requirements (AbuGhazaleh, et al., 2012). The present study made use of purposive sampling–a non-probability sampling technique in which the samples are selected based on criteria set by the researchers. Companies with incomplete financial information or acquired businesses before the effectivity of IFRS 3 in 2004, as well as those reporting their financial statements using foreign currencies or under a fiscal year, were eliminated. Firms with translation adjustments, with less than 5 years of recorded goodwill, negative book value, or with abnormal stock prices were similarly excluded from the sample. Outliers which were identified after the values have been converted to standard scores were also removed. These are values with standard scores beyond ±4 standard deviations around the mean. This sampling technique resulted to a sample of 27 companies, or 135 company-years.

Figure 5 *Sample Selection Process*

Publicly-listed companies in PSE with recognized goodwill		115
Less:	Firms with:	
	Incomplete financial information	(34)
	Business acquisitions before IFRS 3	(20)
	Less than 5 years of recorded goodwill	(17)
	FS amounts in foreign currency	(8)
	Fiscal year	(5)
	Abnormal stock prices	(1)
	Outlier data	(3)
SAMPLE SIZE		27

The data used in the research consisted of secondary data only. Financial data for five periods starting from the year in which goodwill was initially recognized, provided that the recognition is in accordance to the IFRS 3 that took effect in 2004, were extracted from financial statements gathered through the company's official website or through PSE Electronic Disclosure Generation Technology or PSE EDGE, an automated system that facilitates the disclosure reports submitted to PSE. To ensure the reliability of data presented, audited financial statements were used. In addition, stock prices are collected from Osiris, a fully integrated public company database and analytical information

solution produced by Bureau van Dijk Electronic Publishing, which is accessed through the electronic resources provided by the University of Santo Tomas Miguel de Benavides Library.

Restatement of financial statements was done during the conduct of this study to test the value relevance of goodwill under three accounting methods. Data gathered from the audited financial statements include goodwill, accumulated impairment loss, impairment loss recognized during the year, total assets, total liabilities, net income, retained earnings and total shareholders' equity. In addition, year-end closing stock prices were extracted from Osiris. The financial data collected from audited financial statements were utilized in order to compute for the appropriate amounts under three different approaches applied, namely: impairment method, amortization method and direct write-off method. For impairment method, goodwill should be tested for impairment annually as stated by IAS 36 *Impairment of Assets* (IASB, 2004). Since companies are required to comply with this accounting standard, restatement of account is not necessary, hence it retained its actual amount. Under amortization method, it is assumed that the amortization period for every goodwill is 20 years from first year of its recognition. This measure represents the lowest amount of the "as if" amortization, because 20 years was the maximum period allowed for the goodwill amortization under IAS 22 (IASB, 1998). This method requires recognition of an amortization expense every year which results to restated goodwill balance and net income affecting the total assets, retained earnings and total shareholders' equity. Lastly, direct write-off method directly recognized the initial measurement of goodwill as expense during the period of acquisition (Sheridan, 2000). Goodwill recognized at date of acquisition is reversed and measured then as an expense for the period. This resulted to decrease in assets recorded in the financial statements and decrease in net income at the period of acquisition. To facilitate the restatement, impairment losses recognized within five years starting when goodwill was initially recognized are reversed as if impairment testing was not applicable under amortization and direct write-off method. The procedures create differences in the total amounts of assets and shareholders' equity. Book value, net income and the amount recognized as expense for a period was determined to facilitate the extended version of Ohlson Model.

This study focuses on the relationship that occurs between accounting information provided by companies and market information. The influence of different subsequent accounting treatments for goodwill on the market information was examined based on the model applied by Van Hulzen et al. (2011), which is an extended version of the general market valuation model provided by Ohlson (1995). One major advantage of the model developed by Ohlson (1995) is that extra variables can be easily added to the equation. This study added variables such as impairment variable *IMP*, amortization variable *AMORT* and write-off variable *EXP,* on each of the three methods to test how these variables constitute to the market value.

(1) *Ohlson's Basic Model*
$$MV_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 NI_{it} + e_{it}$$

(2) *Extended Ohlson Model (Included Impairment Variable)*
$$MV_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 NI_{it} + \beta_3 IMP_{it} + e_{it}$$

(3) *Extended Ohlson Model (Included Amortization Variable)*
$$MV_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 NI_{it} + \beta_3 AMP_{it} + e_{it}$$

(4) *Extended Ohlson Model (Included Expense Variable)*
$$MV_{it} = \beta_0 + \beta_1 BV_{it} + \beta_2 NI_{it} + \beta_3 EXP_{it} + e_{it}$$

Where:

$MV_{i,t}$ is the market value for company i at time t

$BV_{i,t}$ is the book value of equity for company i at time t

$NI_{i,t}$ is the net income for company i at time t

$IMP_{i,t}$ is the reduction in goodwill value for company i at time t under impairment approach

$AMORT_{i,t}$ is the reduction in goodwill value for company i at time t under amortization approach

$EXP_{i,t}$ is the reduction in goodwill value for company i at time t under direct write-off approach

$e_{i,t}$ is the error term

All variables were deflated by the number of shares outstanding to control for size differences. Value relevance is determined by the estimated regression coefficients of accounting variables included in the model and the R-Squared, R^2. This study employs regression analysis to test the

hypotheses raised. For statistical analysis, different packages such as Gretl and JASP are used. The panel data regression includes different types such as pooled ordinary least squares, fixed effects regression and random effects regression, the choice of correct panel regression is tested by Joint test on named regressors, Breusch-Pagan test and Hausman test. These tests revealed that fixed effects is appropriate.

III. RESULTS AND DISCUSSION

Using the Gretl software, the gathered panel data were subjected to panel regression analysis. The parameters were determined and were estimated using the Fixed Effects Model, the appropriate approach as identified by the results of the Hausman test.

Descriptive Statistics

Table 1
Descriptive Statistics for Impairment Method

Variable	Mean	Std. Dev.	Minimum	Maximum	Skewness
MV	8.7811	11.075	0.030000	63.200	2.5141
BV1	4.4634	5.0158	-0.16196	22.913	1.8528
NI1	0.77609	1.6023	-3.8459	8.5088	1.8638
IMP	0.0025956	0.030058	0.00000	0.34925	11.489

Notes: MV= market value at year end; BV1=book value; NI1= net income; IMP= impairment of goodwill

Table 2
Descriptive Statistics for Amortization Method

Variable	Mean	Std. Dev.	Minimum	Maximum	Skewness
MV	8.7811	11.075	0.030000	63.200	2.5141
BV2	4.4348	4.9968	-0.16411	22.874	1.8546
NI2	0.58601	1.4107	-3.8855	8.5084	2.4989
AMORT	0.011732	0.022441	2.3943×10^{-6}	0.11542	3.1290

Notes: MV= market value at year end; BV2=book value; NI2= net income; AMORT=amortization of goodwill

Table 3
Descriptive Statistics for Direct Write-off Method

Variable	Mean	Std. Dev.	Minimum	Maximum	Skewness
MV	8.7811	11.075	0.030000	63.200	2.5141
BV3	4.2369	4.8371	-0.17627	22.575	1.8816
NI3	0.54950	1.4215	-3.8459	8.5088	2.3943
EXP	0.063980	0.28072	0.00000	2.3084	6.0243

Notes: MV= market value at year end; BV= book value; NI= net income; EXP= expensed goodwill

Table 1, Table 2 and Table 3 present selective descriptive statistics of the research variables used in the multivariate OLS regression examining the value relevance of impairment, amortization and direct write-off methods in accounting for goodwill, respectively. More specifically, mean, standard deviation, minimum, maximum and skewness are presented. As it is shown, the average book value and net income seems to be highest in impairment method (Table 1). Also, the standard deviation of book value and net income are observed to be higher in impairment method (Table 1) than in amortization (Table 2) and direct write-off methods (Table 3).

Correlation Matrices

Table 4
Correlation Coefficients for Impairment Method

Variables	MV	BV1	NI1	IMP
MV	1.0000	0.6507*	0.3993*	0.0274
BV1		1.0000	0.3699	0.1686
NI1			1.0000	-0.1149
IMP				1.0000

Note: 5% critical value (two-tailed) = 0.1690 for n = 135

Table 4 provides the Pearson's correlation coefficients for the variables used in the multivariate OLS regression examining the value relevance of impairment method in accounting for goodwill. As predicted, BV1 and NI1 have positive and significant correlation with MV, $t(135) = 0.6507, p < 0.05$ and $t(135) = 0.3993, p < 0.05$, respectively. However, IMP has positive yet insignificant correlation with MV, $t(135) = 0.0274, p > 0.05$. Table 4 also reveals that the independent variables are not highly correlated (0.7 or higher) with one another, which implies that multicollinearity is not present among predictor variables.

Table 5
Correlation Coefficients for Amortization Method

Variables	MV	BV2	NI2	AMORT
MV	1.0000	0.6454*	0.4388*	0.6205*
BV2		1.0000	0.4297	0.4472
NI2			1.0000	0.2182
AMORT				1.0000

Note: 5% critical value (two-tailed) = 0.1690 for n = 135

Table 5 provides the Pearson's correlation coefficients for the variables used in the multivariate OLS regression examining the value relevance of amortization method in accounting for goodwill. As

predicted, BV2, NI2 and AMORT have positive and significant correlation with MV, $(135) = 0.6454, p < 0.05$, $t(135) = 0.4388, p < 0.05$, and $t(135) = 0.6205, p < 0.05$, respectively. Table 5 also reveals that the independent variables are not highly correlated (0.7 or higher) with one another, which implies that multicollinearity is not present among predictor variables.

Table 6

Correlation Coefficients for Direct Write-off Method

Variables	MV	BV3	NI3	EXP
MV	1.0000	0.6173*	0.4079*	0.1856*
BV3		1.0000	0.4049	0.0700
NI3			1.0000	-0.1108
EXP				1.0000

Note: 5% critical value (two-tailed) = 0.1690 for n = 135

Table 6 provides the Pearson's correlation coefficients for the variables used in the multivariate OLS regression examining the value relevance of direct write-off method in accounting for goodwill. As predicted, BV3, NI3 and EXP have positive and significant correlation with MV, $(135) = 0.6173, p < 0.05$, $t(135) = 0.4079, p < 0.05$, and $t(135) = 0.1856, p < 0.05$, respectively. Table 6 also reveals that the independent variables are not highly correlated (0.7 or higher) with one another, which implies that multicollinearity is not present among predictor variables.

Correspondence of Book Values to Market Values under Impairment Method

Table 7

Fixed-effects, using 135 observations
Included 27 cross-sectional units
Time-series length = 5
Dependent variable: MV

	Coefficient	Std. Error	t-ratio	p-value	
Const	7.37106	1.03597	7.115	<0.0001	***
BV1	0.409557	0.277093	1.478	0.1424	
NI1	−0.510025	0.536978	−0.9498	0.3444	
IMP	−8.53518	13.9470	−0.6120	0.5419	

LSDV R-Squared= 0.889708; LSDV F(29, 105)= 29.20755; P-value(F) = 4.64e-38

To address the first hypothesis, panel data regression analysis using the Fixed Effects Model was used to determine if the book values under the impairment method of accounting for goodwill is value relevant. R squared that resulted from the Fixed Effects Model was examined. The result of the joint significance of differing group means yielded F(26, 105) = 15.9122 with p < .05 which implies that the pooled OLS model is inadequate. Also, the result of the Hausman test yielded p < .05. Results of the regression, as shown in Table 7, reveal that the F statistic is significant, $(29,105) = 29.20755, p < 0.05$, thus, providing evidence that the variance in MV accounted for by the three predictors does not equal zero for the population. Specifically, the coefficient of determination LSDV R-squared, $LSDVR^2 = 0.889708$, indicates that 88.97% of the differences in MV are accounted for by the difference in the three predictor variables taken together. The resulting regression model for this is:

$$MV_{it} = 7.37106 + 0.409557BV1_{it} - 0.510025NI1_{it} - 8.53518IMP_{it} + \epsilon_{it}$$

BV1 has a positive and direct relationship to MV; thus, for every unit increase in BV1, there is a 0.409557 increase in MV. On the other hand, both NI1 and IMP have a negative or inverse relationship to MV; thus, for every unit increase in NI1 and IMP, there is a 0.510025 and 8.53518 decrease in MV, respectively. In terms of unique contribution to R^2, none of the three predictor variables are statistically significant since all t-ratios are associated with p-values greater than 0.05.

Correspondence of Book Values to Market Values under Amortization Method

Table 8

Fixed-effects, using 135 observations
Included 27 cross-sectional units
Time-series length = 5
Dependent variable: MV

	Coefficient	Std. Error	t-ratio	p-value	
Const	8.35350	1.82439	4.579	<0.0001	***
BV2	0.452880	0.268506	1.687	0.0946	*
NI2	−0.566522	0.522504	−1.084	0.2807	
AMORT	−106.448	124.387	−0.8558	0.3941	

LSDV R-Squared= 0.890049; LSDVF(29, 105)= 29.30940; P-value(F)= 3.97e-38;

To further address the first hypothesis, panel data regression analysis using the Fixed Effects Model was used to determine if the book values under the amortization method of accounting for goodwill is value relevant. R squared that resulted from the Fixed Effects Model was examined. The

result of the joint significance of differing group means yielded $F(26, 105) = 11.311$ with $p < 0.05$ which implies that the pooled OLS model is inadequate. Also, the result of the Hausman test yielded p-value $< .05$. Results of the regression, as shown in Table 8, reveal that the F statistic is significant, $(29,105) = 29.30940, p < 0.05$, thus, providing evidence that the variance in MV accounted for by the three predictors does not equal zero for the population. Specifically, the coefficient of determination LSDV R-squared, $LSDVR^2 = 0.890049$, indicates that 89% of the differences in MV are accounted for by the difference in the three predictor variables taken together. The resulting regression model for this is:

$$MV_{it} = 8.3535 + 0.452880BV2_{it} - 0.566522NI2_{it} - 106.448AMORT_{it} + \epsilon_{it}$$

BV2 has a positive and direct relationship to MV; thus, for every unit increase in BV2, there is a 0.45288 increase in MV. On the other hand, both NI2 and AMORT have a negative and inverse relationship to MV; thus, for every unit increase in NI2 and AMORT, there is a 0.566522 and 106.448 decrease in MV, respectively. In terms of unique contribution to R^2, Table 8 reveals that only BV2 ($\beta=0.452880$, $t=1.687$, $p < .10$) is statistically significant, indicating that BV2 is a significant contributor to market value.

Correspondence of Book Values to Market Values under Direct Write-off Method

Table 9
Fixed-effects, using 135 observations
Included 27 cross-sectional units
Time-series length = 5
Dependent variable: MV

	Coefficient	Std. Error	t-ratio	p-value	
const	7.34022	0.990844	7.408	<0.0001	***
BV3	0.435255	0.263080	1.654	0.1010	
NI3	−0.539276	0.506125	−1.065	0.2891	
EXP	−1.67105	1.45095	−1.152	0.2521	

LSDV R-Squared= 0.889949; LSDV F(29, 105)= 29.27945; P-value(F)= 4.15e-38

To further address the first hypothesis, panel data regression analysis using the Fixed Effects Model was used to determine if the book values under the direct write-off method of accounting for goodwill is value relevant. R squared that resulted from the Fixed Effects Model was examined. The result of the joint significance of differing group means yielded $F(26, 105) = 16.5053$ with p-value $< .05$ which implies that the pooled OLS model is inadequate. Also, the result of the Hausman test yielded p-value $< .05$. Results of the regression, as shown in Table 9, reveal that the F statistic is significant, $(29,105) = 29.27945, p < 0.05$, thus, providing evidence that the variance in MV accounted for by the three predictors does not equal zero for the population. Specifically, the coefficient of determination LSDV R-squared, $LSDVR^2 = 0.889949$, indicates that 88.99% of the differences in MV are accounted for by the difference in the three predictor variables taken together. The resulting regression model for this is:

$$MV_{it} = 7.34022 + 0.435255BV3_{it} - 0.539276NI3_{it} - 1.67105EXP_{it} + \epsilon_{it}$$

BV3 has a positive and direct relationship to MV; thus, for every unit increase in BV3, there is a 0.435255 increase in MV. On the other hand, both NI3 and EXP have a negative and inverse relationship to MV; thus, for every unit increase in NI3 and EXP, there is a 0.539276 and 1.67105 decrease in MV, respectively. In terms of unique contribution to R^2, none of the three predictor variables are statistically significant since all t-ratios are associated with p-values greater than 0.05.

Summary of Correspondence of Book Values to Market Values

Table 10
Summary of Fixed-effects Regression Analysis

Method	LSDV F(29,105)	p-value	Remarks	LSDV R-squared
Impairment	29.20755	4.64e-38	Significant	0.889708
Amortization	29.30940	3.97e-38	Significant	0.890049
Direct Write-off	29.27945	4.15e-38	Significant	0.889949

After testing the three methods, all three methods have p-value $< .05$, providing evidence that the variance in MV accounted for by the independent predictors does not equal zero for the population. Moreover, the results contradicted the first hypothesis, which argues that the impairment method provides the most value relevant amount of goodwill. The results rather suggest that there is no method that is more value relevant than the other, because even though the amortization variable has the highest predictive accuracy with an R-squared

value of .890049, the predictive values of the impairment and expense variables are lower only by insignificant amounts, with R-squared values of .889708 and .889949, respectively.

Difference among Three Regression Models

Table 11
Analysis of Variance (ANOVA) of Fitted Values

Cases	Sum of Squares	df	Mean Square	F	p
Methods	1.455e -11	2	7.276e -12	5.656e -14	1.000
Residual	43877.058	402	109.147		

Note: Type III Sum of Squares

Considering all the results of the panel regression analysis using the Fixed Effects Model, the data were tested using JASP software to address the second hypothesis. To check this, analysis of variance (ANOVA) was used. A p-value lower than .05 ($p<.05$) would indicate that there is a significant difference in the fitted values that resulted from regressing the variables using the Ohlson model.

The analysis of the fitted values using ANOVA showed a p-value of 1.0. Therefore, the results contradict the second hypothesis and suggest that there is no significant difference in the value relevance of goodwill under the impairment, amortization, and direct write-off methods.

Accounting standard-setting bodies believe that the impairment approach best reflects the economic value of goodwill, as evidenced by the mandatory adoption of IFRS 3 which subjects goodwill to annual impairment tests and prohibits its amortization (Peristeris, 2016). This is supported by several researches. Eloff and De Villiers (2015) found that the shift in the accounting regime from amortization to impairment resulted to more value relevant goodwill amounts among capital market participants in South Africa. A study applying panel data methodology on 264 German companies rendered the same results (Peristeris, 2016). In contrast, Amel-Zadeh, Faassee, Li and Meeks (as cited in d'Arcy & Tarca, 2018) reported that there is a decline in the value relevance of impairment expense while the value relevance of prior goodwill increased.

The findings of the present study showed that the amortization method has the highest predictive accuracy compared to impairment and direct write-off. However, the predictive values of the impairment and direct write-off methods are lower only by insignificant amounts, suggesting that there

is no significant difference in the value relevance of goodwill under the three methods. Thus, it can be concluded that although investors take into account the accounting information provided by goodwill and this is incorporated in the stock prices, as evidenced by the high R-squared values under the three methods, they do not find one method more value relevant than the other. The results agree with Yamaji and Miki (2011) when they concluded that goodwill amortization values are useful in assessing stock prices because it has garnered the highest predictive accuracy represented by its R-squared. However, the results contradicted the results of the study of Bugeja and Gallery in 2006 when they discussed how older goodwill loses its information content and value relevance since it was concluded that no method is more value relevant than the other. In addition, findings of the study oppose the results of some past researches including the one conducted by Bepari and Molik (2017) which stated that the adoption of the impairment approach increased the value relevance of goodwill in the market. The results also contradict the studies done in South Africa by Eloff and De Villiers (2015), and Omarjee and Garnett (2017) because the said studies concluded that IFRS 3, which superseded IAS 22, increased the value relevance of goodwill. However, the present study agrees with that of Omarjee and Garnett (2017) when they argued that goodwill is value relevant regardless of the method adopted by the reporting entity.

This inconsistency may be attributed to the differences in context, specifically in the locale and samples (Alkali & Lode, 2016). It should be noted that one factor that might have affected the results was the amount of goodwill as a percentage of the total assets. The percentage of goodwill in the sample ranges from 0.00382% to 18.49591%, with an average of 4.10928%, while other studies sampled companies with goodwill amounts ranging from .01% to 76% (Bepari & Mollik, 2017). Additionally, the present study applied the Ohlson model on a sample of 135 firm-years, while previous researches sampled as many as 940 firm-years (Omokhodu & Ibadin, 2015).

IV. CONCLUSIONS

The nature of purchased goodwill has been a source of disagreement among accounting practitioners and scholars for more than a century (Baboukardos & Rimmel, 2014). Consequently, the

IASB recently recommened the discussions regarding the accounting treatment for goodwill (IFRS Foundation, 2015). The on-going debate is mainly centered on the controversial nature of this account and the contradictory views as to which accounting regime results to the most value relevant goodwill amount.

Taking into account the result of this study, with amortization having the highest predictive accuracy among the three goodwill accounting methods, the researchers recommend the International Accounting Standards Board to revisit and reconsider the application of amortization method in accounting for goodwill.

V. RECOMMENDATIONS

Bagudo, Manaf and Ishak (2015) argued that feedback from all over the world is necessary, since adoption of IFRS is a global phenomenon and the standards aim to promote uniformity. No studies regarding the value relevance of goodwill under the three approaches in the Philippine context had been published, to the researchers' knowledge. In addition, minimal studies using the direct write-off method have been published, most of which are already outdated. The results of the present study will contribute to existing literature in this regard.

For future studies, the researchers suggest further stratifying the population into industries to minimize differences in the sample, to avoid outliers in the variables, and to minimize the risk that the samples selected are not representative of the population. Additional samples should also be added to approximate the number of firm-years used in related literature. The implications of adherence to rule-based versus principle-based accounting standards especially as regards goodwill could also be considered (Bepari & Mollik, 2017). Since the impairment method is a principle-based standard which gives room for managerial discretion, future researches may analyze its effect on the relevance and faithful representation of goodwill values presented on the financial statements (Fazal, 2012).

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