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THE DETERMINANTS AND VALUE RELEVANCE OF
GOODWILL IMPAIRMENTS IN MALAYSIAN FIRMS:
THE ROLE OF CORPORATE GOVERNANCE
MECHANISMS

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DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA

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THE DETERMINANTS AND VALUE RELEVANCE OF GOODWILL IMPAIRMENTS IN MALAYSIAN FIRMS: THE ROLE OF CORPORATE GOVERNANCE MECHANISMS

By

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ABSTRACT

The purpose of this study is to examine the determinants and the value relevance of goodwill impairments. In contrast to similar studies, this study does not focus solely on management's opportunistic reporting behavior. Instead, it provides some insights into the likelihood that they exercise their discretion to improve the informational value of accounting information. In addition, this study compares the determinants of goodwill impairments across the pre- and the post Malaysian Code on Corporate Governance 2012 (MCCG 2012) and explores the influence of monitoring mechanisms on shareholders' valuation assessments of goodwill impairments. By doing so, it extends the literature relating to the role of corporate governance in constraining management's discretionary behavior associated with goodwill impairment testing. Using panel data over the period 2010 to 2014, the results show that goodwill impairments are associated with "big bath" behavior, an earnings management technique, and CEO changes. The results also indicate that these impairments generate value relevant and bad news to shareholders. Therefore, the combined findings suggest that establishing accounting standards which provide relevant information are difficult to implement reliably. Additionally, this study documents that, except for CEO changes, goodwill impairments have greater association with big bath behavior, and lower association with return on assets subsequent to MCCG 2012 implementation, consistent with criticisms of the MCCG. Finally, this study shows that effective corporate governance mitigates the bad news conveyed by goodwill impairments, indicating that firms with strong monitoring mechanisms are less likely to engage in big bath reporting behavior. Overall, the findings of this study should be useful to standard setters and policy makers who are interested in improving and evaluating the quality of goodwill reporting and corporate governance practices in Malaysia while emphasizing the importance of good corporate governance in ensuring credible accounting information.

Keywords: corporate governance, goodwill impairments, managerial agency-based motives, value relevance, principal component analysis.

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ABSTRAK


Kata kunci: tadbir urus korporat, kejejasan muhibah, motif bersandarkan agensi pengurusan, relevansi nilai, analisis komponen utama

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In the name of Allah, the Most Gracious, the Most Merciful

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Ahmad Al-Hiyari
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<td>Book to Market Value</td>
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<td>Chief Executive Officer</td>
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<td>CGU</td>
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CHAPTER ONE
INTRODUCTION

1.0 Overview of the Chapter

This chapter outlines the introduction of the study, which is divided into the following
sections. Section 1.1 introduces the background of the study. Then the Malaysian Code on
Corporate Governance (MCCG) is discussed in Section 1.2. Section 1.3 provides
motivations for using Malaysian data. Next, Section 1.4 presents the problem statement.
This is followed by the research questions and objectives stated in Section 1.5. The scope
of the study is explained in Section 1.6. The chapter proceeds with the significance and
contributions of the study in Section 1.7. Finally, Section 1.8 presents the summary of the
chapter.

1.1 Background for the Study

Accounting for acquired goodwill is a contentious topic that has raised considerable
ongoing debate for the past decades (Chalmers, Godfrey, & Webster, 2011). Since the
nineteenth century, academics and practitioners have been striving to determine the most
appropriate approach to account for the pecuniary excess paid by a buyer over the fair
value of the net assets acquired in a business combination transaction (Cooper, 2007). In
Malaysia, this issue became more prominent in 1992, when disagreement arose between
the Malaysian Association of Certified Public Accountants (MACPA) and the Malaysian
Institute of Accountants (MIA) over adopting Malaysian Accounting Standard (MAS) 6
(Susela, 1999). Similarly, Malaysia also witnessed extensive lobbying activities during
the past century from big 4 auditors and large corporations for the preferred accounting
treatment of goodwill, which resulted in the failure to issue an effective accounting
standard with respect to this asset (Susela, 1999).¹

Not surprising, then, no mandatory accounting standard was present to govern the
accounting for goodwill. Particularly, both the (MAS) 6 and the successive Exposure
Draft (ED) 28 never became effective (Abdullah, Ahmad, & Ishak, 2004). Prior to the
Malaysia’s adoption of International Financial Reporting Standards (IFRSs) in 2006,
three main methods were used to account for goodwill. These methods included: (1)
capitalization of goodwill as a permanent item in the balance sheet, (2) capitalization of
goodwill as a permanent item in the balance sheet, but with systematic amortization
against profit and loss, and (3) immediate write-off to reserves (Susela, 1999). Consequently, the diversity in accounting practices related to goodwill resulted in
reducing the quality of financial reporting in Malaysia (Carlin, Finch, & Laili, 2009a;
Tong, 2012).

The issue then regained significant attention after the Malaysia’s adoption of IFRS and
the implementation of the Financial Reporting Standard (FRS) 3, Business combination,
and (FRS) 136, Impairment of Assets.² The main objective of these standards was to
enable firms to better reflect the underlying economic attributes of goodwill on their

¹ The term Big 4 is used in this study as a generic term covering the Big 8, Big 6, and Big 5 accounting firms.

² On 19 November 2011, the MASB issued a new MASB Framework, which was known as the Malaysian Financial
Reporting Standards (MFRSs) (KPMG, 2011). The Malaysian FRSs (MFRS) since released by the MASB are
equivalent to IFRS in all aspects other than nomenclature (Abdullah, Evans, Fraser, & Tsalavoutas, 2015).
Nevertheless, some factors may limit the desired goal of the new standards. For example, under MFRS No. 136, firms should first define Cash Generating Units (CGUs) and allocate goodwill to them. Then, they should test each unit for potential impairment. However, due to the lack of clear guidance for identifying cash generating units, determining goodwill impairment is highly judgmental (Chao & Horng, 2013; Qasim, Haddad, & AbuGhazaleh, 2013; Wines, Dagwell, & Windsor, 2007). This issue facilitates earnings manipulation through discretionary goodwill impairment. For instance, on one hand, it is argued that, if managers allocate goodwill to a low growth cash-generating unit, they will warrant its impairment. By contrast, allocating the identical amounts of goodwill to a high-growth cash generating unit will warrant no impairment (Chao & Horng, 2013; Ramanna & Watts, 2012).

Furthermore, valuing the recoverable amount of cash generating unit (CGU) is too subjective (Verriest & Gaeremynck, 2009). In particular, the new standard allows managers to use their own judgment to determine the recoverable amounts of the CGUs based on Value In Use (VIU) (Petersen & Plenborg, 2010). Thereby, managers are required to determine the inputs into the discounted cash flow analysis. This includes establishing a suitable discount rate that reflects the risks of (CGUs) and making forecasts about future cash flows that are unverifiable (PricewaterhouseCoopers, 2010; Watts, 2003). Accordingly, if a firm's goodwill has become impaired, but managers desire to delay or avoid recognising an impairment loss, they can then manipulate the

---

Cash generating unit (CGU) is the smallest part of a company that produces independent waves of cash flows from other assets (MFRS 136, para. 6).
estimates used in calculating the recoverable amount in an upward direction. On the other hand, if conditions are bad and managers want to clean out the balance sheet from the discretionary goodwill impairments, they can manipulate the estimates employed to calculate the recoverable amount in an downward direction (Chao & Horng, 2013; Wines et al., 2007).

Consequently, there is a long-standing debate on whether expanding managerial discretion in goodwill impairment decisions is appropriate. Proponents argue that managers will use their discretion when conducting an impairment review to communicate their assessment of future performance to capital market. Nevertheless, this view is challenged by some critics who believe that the impairment approach relies heavily on managerial judgments, which in turn increases the opportunities for managerial opportunism (Massoud & Raiborn, 2003; Ramanna & Watts, 2012; Watts, 2003). For instance, Watts (2003) claims that SFAS 142, *Goodwill and Other Intangible Assets*, is the outcome of lobbying activities by investment bankers. He disagrees with the Financial Accounting Standards Board’s (FASB) decision to adopt SFAS No. 142 because the impairment review diverges from the concept of verifiability. His study affirms that relying on unverifiable fair value measurements of goodwill impairments testing leaves enormous room for management’s estimates and judgments that would result in opportunistic earnings management.

---

*Impairment loss is the new term for writing off useless goodwill (Wayman, 2014). The term reflects management inability to price the acquiree company or to extract value from previous acquisition activities (Franceschi & Chang, 2012; Paugam, Astolfi, & Ramond, 2015).*
Other opponents have gone beyond this logic to argue that relying on managers unobservable inputs becomes more serious because, if the managers used their discretion to avoid goodwill impairments, they can claim that problems were caused by factors outside their control such as in the case of macro-economic conditions (Ramanna & Watts, 2012). This is particularly true because the impairment test is difficult to audit and verify as calculating the fair value of cash generating units relies greatly on future management actions, including managers’ insights and execution of a company strategy. Therefore, convicting such managers of malfeasance in courts of law is difficult (Ramanna & Watts, 2012). In view of the aforementioned issues, Skinner (2008) called for further research to verify whether there is a manipulation in consistent with the ex-post arguments against the proposition of the standard setters.

Meanwhile, extant studies in Malaysia showed evidence that managers employ their discretion in the reporting of goodwill impairment charges (Abdul Majid, 2015; Abuaddous, Hanefah, & Laili, 2014; Haron & Atan, 2010; Mohd-Saleh & Omar, 2014). For example, Abdul Majid (2015) found that managerial incentives such as big bath and income smoothing played a critical role in goodwill impairment between 2006 and 2010. Mohd-Saleh and Omar (2014) found evidence that the combined effect of CEO duality and family-dominated business had important effects on the goodwill impairment decisions between 2006 through 2008. Omar, Mohd-Saleh, Salleh, and Ahmed (2015) showed evidence that the probability of recording goodwill impairments increases in family firms relative to non-family ones.
To sum, the previous studies in Malaysia did not examine whether managers used their discretion to communicate value relevant information to capital markets. Nevertheless, some concluded that impairment-only approach reduced the quality of the financial statements (see, for example, Omar et al., 2015). However, earnings management in itself does not impair the issue of accounting discretion. Rather, the most significant question is whether the opportunities for enhanced disclosure of managers’ inside information are more than offset by the bias arising from managerial opportunism (Boone & Raman, 2007; Dye & Verrecchia, 1995).

Therefore, the findings of prior studies do not address the question of whether the new standard has improved the disclosure of managers’ relevant information to shareholders. Thus, it is still ambiguous whether managers exercise their accounting discretion to improve the informational value of goodwill impairment. In the same vein, AbuGhazaleh et al. (2011) and Ramanna (2008) recommend an examination of the determinants and value relevance of goodwill in order to shed light on some of the costs and benefits associated with the implementation of the impairment-only approach.

Consequently, this study first addresses the question of whether goodwill impairment charges in Malaysian firms provide value-relevant information to shareholders. The study hypothesizes that goodwill impairments are more likely to communicate manager’s inside information if these losses are significantly associated with firms’ equity values (AbuGhazaleh, Al-Hares, & Haddad, 2012). Theoretically, this approach is used to test how particular items of the financial reports are “priced” in the sense of being correlated
with the firm's market value of equity (Wolk, Dodd, & Rozycki, 2013). Accounting information is deemed to be “value relevant” if it is capable of making a difference in shareholders decision-making (Scott, 2012).

Major accounting standard setters have adopted the shareholder-oriented information usefulness standpoint and particularly affirmed that the major purpose of accounting is to provide relevant information to capital markets (Chen, Chen, & Su, 2001). Hence, assessing the association between a company’s accounting information and its market value is of concern to both academics and practitioners (Fung, Su, & Zhu, 2010). This motivates the current research's investigation of the value relevance of goodwill impairments.

The study further explores this issue by examining whether corporate governance has a moderating effect on the value relevance of goodwill impairments. The presumption is that the information asymmetry arising from an unverifiable goodwill review might provide managers greater opportunities to transfer the wealth from outsiders to themselves. This wealth transfer, which is termed agency costs, could be accomplished in a way that is not readily transparent or observable to investors in financial reports (Cullinan, Wang, Wang, & Zhang, 2012). Therefore, shareholders might perceive goodwill impairments reported by firms with strong corporate governance mechanisms as reflecting the true decline in the value of goodwill to incorporate them in their equity pricing decisions. This is because these mechanisms make it less likely that management behaves either opportunistically or does not communicate credible information to markets
(Kanagaretnam, Lobo, & Whalen, 2007). Hence, corporate governance might increase the reliability of reported impairment charges and thus alter shareholders’ valuation of these amounts.

The next important issue that the study addresses is whether goodwill impairments are associated with managerial agency-based motives. Conceptually, goodwill impairments usually occur due to financial factors underlying firm economic attributes, reporting incentives of top managements and the control mechanisms imposed by strong corporate governance (AbuGhazaleh et al., 2011; Chao & Horng, 2013; Guler, 2007; Riedl, 2004). Therefore, managers should recognize goodwill impairment if they note that a firm experienced poor financial performance and the carrying amount of the cash generating unit (CGUs) exceeds its recoverable amount (AbuGhazaleh et al., 2011; Wines et al., 2007). Hence, the likelihood of reporting goodwill impairment may increase in firms with deteriorating financial performance. Similarly, in the absence of effective corporate governance mechanisms, managers are more likely to report impairment charges opportunistically when they have agency-based motives to do so (AbuGhazaleh et al., 2011; Ramanna & Watts, 2012; Riedl, 2004).

These managerial agency-based motives include to: (1) avoid the breaching of debt agreements, (2) maximize management compensation through big bath behavior and income smoothing, (3) take “unnecessary” goodwill impairment by the incoming CEOs in order to achieve superior performance in the subsequent years, while blaming the departing CEOs for poor acquisition they made, and (4) avoid reputation costs. CEOs
who initiated the acquisition decision generating goodwill are less likely to recognize impairment loss, hence it may lead to damage on their reputations in the sights of shareholders (Beatty & Weber, 2006; Lapointe-Antunes et al., 2009; Masters-Stout, Costigan, & Lovata, 2008; Riedl, 2004; Ronen & Yaari, 2008; Zang, 2008).

Consequently, the need for strong monitoring mechanisms to deal with the unverifiable fair-value-based impairment testing cannot be ignored because management assumptions about goodwill valuations are not observable or transparent to outside users (Wines et al., 2007). In the same context, prior studies have suggested that a code on corporate governance serves as a mechanism allowing outsiders to reduce managerial discretion, and therefore to mitigate the opportunistic earnings management, to improve financial reporting quality, and to raise firm value (see, for example, Alonso-Pauli & Pérez-Castrillo, 2012; Goncharov, Werner, & Zimmermann, 2006; Peasnell, Pope, & Young, 2000).

Within this context, Malaysia has recently enhanced its governance structure through the Malaysian Code on Corporate Governance (MCCG) 2012. Hence, the present study not only examines the determinants of goodwill impairment, but also exploits this new regulatory reform, whereby the same managerial incentives exist, but managers face different governance regimes when reviewing goodwill for impairments. Specifically, the current study examines whether the association between goodwill impairments with financial factors and managerial agency-based motives differs between the pre- and post-MCCG 2012 regimes as discussed below.
1.2 Malaysian Code on Corporate Governance

The former Vice-President of the Malaysia Institute of Corporate Governance, Tan Sri Lau Ban Tin, called for a more effective Corporate Governance Code as highly publicized scandals still overwhelmed the business environment in Malaysia (Governance Newsletter, 2010). Then, the Malaysian Securities Commission issued its Corporate Governance Blueprint 2011, which spelled out the Commission’s outlines for enhancing governance regulatory structures over the coming five years (Governance Newsletter, 2011). One of the most important deliverable of the Corporate Governance Blueprint 2011 was the Malaysian Code on Corporate Governance 2012 (MCCG 2012).

Originally, the corporate governance code in Malaysia largely followed the Anglo-American approach in the United Kingdom, essentially drawn from the recommendations of the Cadbury Report (Liew, 2008). These recommendations focus on strengthening the role of non-executive directors. This is accomplished by imposing strict rules regarding independence of non-executive directors, creation of numerous committees comprised solely of non-executive directors, having a senior independent director of a board to whom all matters can be directed, and also that outside independent directors are at least as numerous as executive ones (Zalewska, 2014).

According to listing requirements of the Bursa Malaysia, firms are obliged to disclose information annually based on the rule of the “comply or explain” voluntary approach by which they must explain the extent to which they have complied to best practices and also must clarify any conditions justifying departure from any non-compliance (Aguilera
& Cuervo-Cazurra, 2009; Securities Commission, 2000). The logic underlying the above position is that one-size-fits-all is not necessarily the optimal choice for a firm and what are the exact conditions that have led to non-compliance (Arcot, Bruno, & Faure-Grimaud, 2010). In the same vein, the code encourages firms to adopt the spirit of the best practices instead of simply satisfying the minimum requirements or “box ticking” behaviors for which the latter may fail to allow for sound deviations from recommendations in the code (Arcot et al., 2010; Leong, 2013).

Indeed, corporate governance in Malaysia is often seen as an important mechanism to prevent controlling shareholders, including bureaucrats or powerful personalities, from engaging in any acts that are detrimental to the best interests of minority shareholders (Liew, 2008; Ow-Yong & Guan, 2000; Vithiatharan & Gomez, 2014). This is because the Malaysian capital market is characterised by a high level of ownership concentration and the wide presence of family-dominated business, with family owners in top managerial positions and occupying sensitive places on boards of directors (see, for example, Amran & Che-Ahmad, 2009). Consequently, controlling shareholders have enough power to expropriate the best interests of minority shareholders. This problem is exacerbated through pyramid structures and cross-shareholdings between Malaysian firms (Ow-Yong & Guan, 2000; Salim, 2006). Thus, it comes as no surprise that the divergence between control and cash flow rights is significant (Ow-Yong & Guan, 2000).

Furthermore, Malaysia has a business environment characterised by a wide presence of politically connected firms, with significant influence of politicians on the capital market
and allegations of extensive destructive political nepotism and cronyism (Gul, 2006; Vithiatharan & Gomez, 2014). These institutional features, in conjunction with lack of an active market for corporate control, weak shareholder protection and lax law enforcement, make reform of corporate governance in Malaysia a big challenge (Haniffa & Hudaib, 2006; Hasnan, Rahman, & Mahenthiran, 2013; Liew, 2008).

To improve corporate governance, the MCCG 2012 introduces new provisions whose purpose is to improve the effectiveness of the board of directors through strengthening its composition and independence as well as recognising the role of directors as active and responsible fiduciaries. The code comprised of 8 principles and 26 recommendations on good corporate governance.

Basically, each principle in the code is followed by recommendations and commentaries that attempt to demonstrate and help firms understand the recommendation. The principles incorporate wide concepts regarding effective corporate governance that firms are expected to apply when implementing the recommendations. The recommendations are specific standards that help firms to achieve the principles. The principles under current code include: establishing clear roles and responsibilities, strengthening composition, reinforcing independence, fostering commitment, upholding integrity in financial reporting, recognising and managing risks, ensuring timely and high-quality disclosure and strengthening the relationship between company and shareholders (Securities Commission, 2012).
To the extent that the new code has improved corporate governance and reduced the ability of managers to manage earnings, it could be that the ex-ante relationship between goodwill impairments with financial factors and managerial agency-based motives may differ after the implementation of MCCG 2012. This study therefore, attempts to enrich the literature on the controversy surrounding corporate governance reforms in Malaysia, wherein the implementation of MCCG has been seen as a more contentious issue.

1.3 Motivation for Study

Most empirical evidence in Malaysia is silent regarding whether the impairment approach enables managers to communicate value relevant information to shareholders (e.g., Abdul Majid, 2015; Abraruddous et al., 2014; Haron & Atan, 2010; Mohd-Saleh & Omar, 2014). So, this study provides evidence on the extent to which goodwill impairments may be motivated not only by managers’ private incentives, but also by incentives to release useful information to shareholders. More importantly, this study considers the role played by corporate governance in reducing the opportunities for earnings manipulation, within the context of a unique developing market, Malaysia.

The Malaysian context is especially interesting as it has many important attributes that may influence managerial incentives to distort earnings through discretionary goodwill impairment. First, Malaysia is a multiracial country (Mustapha & Che-Ahmad, 2011), and is grouped among common-law countries, with weak enforcement of accounting regulations (Muniandy & Ali, 2012), and has a capital market characterised by complex ownership structures (Amran & Che-Ahmad, 2011). The main agency problem in Malaysian companies arises from the conflict between dominating shareholders and
minority shareholders. This contrasts with the Anglo-Saxon countries such as the United States, wherein the major agency problem lies between managers and shareholders. If a small number of owners has dominating control of the company’s management, then they may record accounting information more to expropriate the minority shareholders than to represent the underlying economic events influencing a company (Chen & Zhang, 2014; Ching, Firth, & Rui, 2006). Therefore, the uniqueness of Malaysian business environment in which ownership concentration is prevalent provides important advantages for this study.

Second, the capital market in Malaysia offers a fertile ground for managing earnings through goodwill impairment. Compared to Western countries, the lack of an active and liquid market in Malaysia indicates that most companies tend to adopt Value In Use (VIU) to estimate the recoverable amounts of the CGU (Carlin et al., 2009a). In such circumstances, managers tend to use estimates and judgments that are difficult to verify, subject to measurement errors, and susceptible to creative accounting practices (Landsman, 2007; Song, Thomas, & Yi, 2010; Wines et al., 2007).

Similarly, the level of compliance and disclosure by Malaysian firms is far from the most desirable. For example, Carlin et al. (2009a) found poor disclosure in relationship to the allocation of goodwill to cash generating units CGUs and the measurement of recoverable amounts of those units. Interestingly, their study shows that firms in Malaysia tend to define fewer cash generating units CGUs and allocate goodwill to them. However, this behavior introduces the “cash generating unit aggregation problem”, which...
implies that impairment losses on unprofitable cash generating units might be cancelled by unrecognized increases in the value of profitable ones (Carlin et al., 2009a; PricewaterhouseCoopers, 2010). These institutional settings, along with poor compliance with the standards may generate the problem of information asymmetry and therefore increase the likelihood of adverse selection and the moral hazard (Jo & Kim, 2007; Landsman, 2007). Consequently, the role played by corporate governance in influencing shareholders perceptions about goodwill impairments is considered in this study.

Third, improved quality of corporate governance practices has been widely recognized as of vital importance for both local firms and foreign shareholders who are looking for good opportunities for investment and the potential for growth that capital markets offer (Rajagopalan & Zhang, 2008). However, the approach adopted by Malaysian regulators was based on the Anglo-Saxon corporate governance system in light of increasing global competition to attract foreign investments from different countries (Liew, 2007). Therefore, Malaysia provides an excellent laboratory to compare the determinants of goodwill impairment across the pre- and the post-MCCG 2012 regimes, as there are growing pressures to enhance corporate governance structures in developing countries to line with international standards (Liew, 2008).

1.4 Importance of Goodwill

This study focuses on goodwill for many reasons. First, unlike other assets of the business, goodwill can only be sold or purchased as part of a firm as whole. Hence, goodwill cannot be sold separately (Henderson, Peirson, & Herbohn, 2008). Likewise, in the case of liquidation, the value of goodwill disappears as collateral for debtholders
(Kothari, Ramanna, & Skinner, 2010). Furthermore, goodwill is among the most sensitive of assets and its impairment tests are heavily influenced by unverifiable fair value assessments that provide too much discretion for managers in deciding when and how much to impair the asset (Filip, Jeanjean, & Paugam, 2015). Second, goodwill impairments can help shareholders to monitor managers’ capital allocation decisions (Filip et al., 2015). This is particularly true because goodwill impairment per se denotes management’s inability to price the acquired company or to realize the planned synergies subsequent to a business combination transaction (Franceschi & Chang, 2012). Third, the amounts of goodwill reported on the balance sheet tend to be economically significant. From the balance sheet perspective, Figure 1.1 below shows that the percentage of goodwill to total assets was 5 per cent between the years 2010 and 2014. From the income statement perspective, Figure 1.2 below that the total amount of goodwill impairments as a proportion of prior year pre-tax-earnings was above 5 per cent, suggesting that reported goodwill impairments have significant ramifications for the earnings of firms.

![Figure 1.1](image)

**Figure 1.1**

*Goodwill as a percentage of total assets*

Source: (Developed by the study)

^V These percentages reflect all firm-year observations included in the study from 2010 to 2014. Furthermore, the amount of goodwill is adjusted by adding back impairment charges recognized during the year.
1.4 Problem Statement

Accounting for purchased goodwill has been the subject of substantial debate over the past decades (Ramanna & Watts, 2012). These debates are essentially generated not only by the economic significance of goodwill in the balance sheet, but also by the subjectivity inherent in the application of the impairment-only approach and the conceptual move toward fair-value accounting (FVA) (Jarva, 2012; Lee & Yoon, 2012).

The impairment-only approach was established with the objective of ensuring that reported goodwill does not have carrying amount in excess of its recoverable amount (Verriest & Gaeremynck, 2009). Proponents of goodwill accounting under the IFRS regime have argued that managers will employ their reporting discretion to communicate inside information about a firm's future prospects. Opponents have warned that managers can exploit the flexibility offered in the impairment approach to obtain private incentives (Ramanna & Watts, 2012).

\[\text{VI} \text{ These percentages reflect only impairment firms included in the study from 2010 to 2014.}\]
In Malaysia, remarkable attention has been given to opportunistic perspective of positive accounting theory (Abdul Majid, 2015; Al-Hiyari, Abdul Latif, & Amran, 2016a; Mohd-Saleh & Omar, 2014; Omar et al., 2015), but little attention has been given to the possibility that managers exercised their reporting discretion to disclose value relevant information to the users of financial statements. Consequently, there is a long-standing debate and controversy about whether managers used their discretion to improve the informational value of impairment charges to shareholders. Hence, the current study attempts to extend the literature by examining the value relevance of goodwill impairment to shareholders.

The study then turns to an important, yet unanswered, issue about whether the quality of corporate governance influence the shareholders’ valuation assessments of goodwill impairments. The empirical tests in this study are motivated by the fact of substantial managerial discretion involved in determining the amount and timing of goodwill impairments (Lapointe-Antunes et al., 2009). This may in turn increase information asymmetry between better informed management and less informed shareholders, making it easy for professional managers to pursue their private incentives. In particular, by giving managers considerable discretion in goodwill impairment testing, they can introduce bias and error, resulting in hampering the reliability of reported amounts (Bens, Heltzer, & Segal, 2011; Ramanna & Watts, 2012). Given that corporate governance can mitigate the information asymmetry associated with unverifiable goodwill impairment, the higher the quality of corporate governance, presumably the stronger is the assurance to shareholders that impairment losses are sufficiently reliable measurements of a decline...
in the value of goodwill. They may therefore perceive that reduced opportunities for earnings manipulation exist in firms with strong corporate governance.

To evaluate the validity of claim by the opponents of the goodwill accounting under the IFRS regime, this study looks at the factors influencing the amount of goodwill impairments. The accounting literature documents that the financial factors and the managerial agency-based motives play an important role in explaining goodwill impairments (AbuGhazaleh et al., 2011; Beatty & Weber, 2006; Zang, 2008). The financial factors attempt to control the actual economic impairment of goodwill before discussing the attributes of managerial agency-based motives (AbuGhazaleh et al., 2011). A significant association between goodwill and financial factors suggests that these impairment losses reflect the firm’s underlying economic conditions. Otherwise, reported goodwill impairments are consistent with the critics of the impairment-only approach.

Although goodwill impairments can be significantly associated with financial factors, previous studies also indicate that in the absence of effective corporate governance mechanisms, self-serving managers may record or not record an economic impairment when they have agency-based motives to do so (AbuGhazaleh et al., 2011; Ramanna & Watts, 2012; Riedl, 2004). These motives are generally related to contractual issues (e.g., debt covenants and managerial compensation) and market incentives (e.g., CEO reputation concerns) (Beatty & Weber, 2006; Fields, Lys, & Vincent, 2001).

Finally, this study takes advantage of the securities commission’s decision concerning the promulgation of the MCCG 2012, whereby the same managerial agency-based motives
exist, but different governance regimes are encountered by managers when testing goodwill for impairment. Specifically, the current study compares the determinants of goodwill impairments across the pre- and post-MCCG 2012 regimes. Following the 1997 Asian financial crisis, the capital market in Malaysia was subject to key legislative and institutional reforms (Vithiatharan & Gomez, 2014). In particular, Malaysian regulators launched numerous initiatives to enhance corporate governance. One of these initiatives was the MCCG 2012. The code established a series of new recommendations and amendments to strengthen the existing governance framework. It sought to improve regulations on board structure and composition, disclosure quality, shareholders’ protections, and firms’ roles in meeting the legitimate interests of various stakeholders.

Yet, doubts exist about whether the corporate governance reforms introduced through MCCG 2012 have achieved their desired effects of the change. Machuga and Teitel (2009) posited that corporate governance reform would not achieve the desired effects of the change, unless regulators considered the cultural and legal environments of the country. They advanced that applying corporate governance reforms without considering local peculiarities and environments might actually impede the desired outcomes of the change (Liew, 2008; Machuga & Teitel, 2009; Vithiatharan & Gomez, 2014).

Existing corporate governance codes in Malaysia are mainly derived from the Anglo-American approach, in which ownership is typically broadly dispersed (Cullinan et al., 2012). Hence, the focus of corporate governance reform is misplaced since the ownership is concentrated in the hands of a small group of shareholders who actively control the
company's decision making. Consequently, the actual control of Malaysian firms is exercised by dominating shareholders and not by directors (Salim, 2006). When the power of board is mostly derived from controlling shareholders, it is unreasonable to expect the board to punish or discipline the controlling shareholder(s). This, in turn, will adversely affect the effectiveness of the board of directors (Rajagopalan & Zhang, 2008).

Based on the above discussion, it is ambiguous whether the MCCG 2012 leads to more effective governance mechanisms and limits management's opportunistic discretion in determining goodwill impairments. To the extent that the MCCG 2012 is nothing more than "box ticking" behavior, MCCG 2012 might not have any significant effect on improving the reporting of goodwill impairments. Consequently, the effectiveness of MCCG 2012 in constraining earnings management from the perspective of the discretionary goodwill impairment is inherently an empirical question.

1.5 Research Questions and Objectives

This study aimed to answer the following research questions:

1. To what extent are goodwill impairments associated with stock prices?
2. To what extent do the corporate governance mechanisms have moderating effects on the value relevance of goodwill impairments?
3. What is the influence of financial factors on the decisions of managers regarding the amount of goodwill impairments?
4. What is the influence of managerial agency-based motives on the decisions of managers regarding the amount of goodwill impairments?
5. Do the association between goodwill impairments and financial factors differ from the pre- to the post-MCCG 2012 regimes?

6. Do the association between goodwill impairments and managerial agency-based motives differ from the pre- to the post-MCCG 2012 regimes?

In relationship to the above research questions, the study has the following research objectives:

1. To examine the value relevance of goodwill impairments;
2. To examine the moderating role of corporate governance mechanisms on the value relevance of goodwill impairments;
3. To examine the association between goodwill impairments and financial factors;
4. To examine the association between goodwill impairments and managerial agency-based motives;
5. To compare the association between goodwill impairments and financial factors of the pre- to the post-MCCG 2012 regimes; and
6. To compare the association between goodwill impairments and managerial agency-based motives of the pre- and the post-MCCG 2012 regimes.

1.6 Scope of the Study

This study attempts to provide insights about whether goodwill impairments are value relevant to shareholders. This issue is further explored by examining the impact of corporate governance on the usefulness of goodwill impairments to shareholders. To achieve this task, Principal Component Analysis (PCA) is used to summarize the information content of thirteen variables into smaller number of factors that capture
various aspect of governance quality. These variables include: (1) board independence, (2) board size, (3) the separate roles of CEO and chairman, (4) frequency of board meetings, (5) audit committee independence, (6) audit committee size, (7) frequency of audit committee meetings, (8) audit committee financial experience, (9) the presence of a Big 4 auditor, (10) sourcing arrangements for internal audit functions, (11) managerial ownership, (12) non-executive directors' ownership, and (13) institutional ownership.

The second important issue that the study addresses is the influence of financial factors and managerial agency-based motives on the accounting choices that managers make when conducting impairment tests. The financial factors include: (1) the book-to-market value ratio, (2) stock performance, (3) change in sales, (4) return on assets, and (5) change in operating cash flows. The managerial agency-based motives include: (1) debt ratio, (2) big bath behavior, (3) income smoothing, (4) CEO changes, and (5) CEO tenure. In examining such issues, this study takes advantage of the new regulatory reform in Malaysia and compares the association between the goodwill impairments with financial factors and managerial agency-based motives for the pre- and the post-MCCG 2012 regimes.

The sample of the study comprises all nonfinancial listed companies on both Main Board and ACE markets between the years 2010 and 2014. The statistical methods employed to answer the research questions are fixed-effects panel regression and Tobit panel regression. Finally, this study uses secondary data, which is obtainable from annual reports, DataStream and the Bursa Malaysia website.
1.7 Significance and Contribution of the Study

This study contributes to the accounting literature in numerous ways. First, unlike prior research that focuses solely on the opportunistic perspective of the agency theory, it considers the likelihood that managers try to provide value relevant information about their firms’ future prospects. Consequently, this study adds to the literature by using a large panel dataset of Malaysian-listed firms to examine the determinants and value relevance of goodwill impairments. By so doing, it may provide valuable inferences to professional bodies about principles- versus rules-based accounting standards.

Second, a substantial body of previous research has examined the value relevance of financial information, particularly, goodwill impairments for firms in the United States or the United Kingdom. These studies generally have had inconsistent results (AbuGhazaleh et al., 2012; Chen, Kohlbeck, & Warfield, 2008; Duangploy, Shelton, & Omer, 2005; Hamberg & Beisland, 2014; Hulzen, Alfonso, Georgakopoulos, & Sotiropoulos, 2011; Laghi, Mattei, & Marcantonio, 2013; Lapointe-Antunes et al., 2009; Xu, Anandarajan, & Curatola, 2011). This current study contributes to the body of accounting literature by examining the impact of corporate governance on the value relevance of goodwill impairments. The greater demand for credible accounting information justifies the need for more effective corporate governance. Thus, regulators and other policy makers seeking to develop sophisticated capital markets can derive useful implications from this study about the role of corporate governance in shareholders decision-making.
Third, following the recent corporate governance scandals, the Securities Commission (SC) attempted to improve the capital market in Malaysia through the MCCG 2012. This study extends past research by comparing the determinants of goodwill impairments across the pre- and the post-MCCG 2012 regimes. By so doing, it helps to inform regulators and policy makers about the efficacy of the new code.

Finally, this study further extends previous research by Lapointe-Antunes et al. (2009) through using principal component analysis (PCA), which condenses many governance variables into a smaller number of factors and is likely to capture the different aspects of corporate governance quality. The main advantage of using PCA is that it automatically generates weights for the variables entered into analysis (Florackis & Ozkan, 2009). In contrast, previous studies overlooked the relative contribution of each governance variable in ensuring quality (see, for example, Verriest, Gaeremynck, & Thornton, 2013). In summary, this study is expected to provide fruitful insights to standard setters and other policy makers about the efficacy of MFRS 136, and the new governance reforms in Malaysia.

1.8 Summary

This chapter presented the background and motivation of the study. It also explained the MCCG 2012, the problem statement, the research questions, the objectives, and the scope of the study. The chapter then discussed the significance and contribution of the study. Chapter 2 describes the institutional background.
2.0 Overview of the Chapter

This chapter briefly discusses the institutional background and important attributes of the Malaysian capital market. It comprises seven sections. Section 2.1 discusses the past accounting treatment for goodwill. Section 2.2 describes the IFRS accounting for goodwill. Section 2.3 explains the sources of managerial discretion in reviewing goodwill for impairment. Section 2.4 provides background information about the historical development of accounting for goodwill in Malaysia. Section 2.5 provides an overview of the Malaysian Code on Corporate Governance. Section 2.6 identifies some challenges and critiques to corporate governance reforms in Malaysia. Lastly, section 2.7, summarizes the contents of the chapter.

2.1 Past Accounting Treatment for Goodwill

During the past century, systematic amortization of goodwill over its useful life was the dominant method to account for goodwill subsequent to business combination. Such a method is consistent with the notion that goodwill is a wasting asset and therefore its value should be amortized (Wines et al., 2007). It also consistent with the view that the cost of goodwill should be matched against future benefits generated from past acquisitions (Henderson et al., 2008). The primary advantage of this approach is that it gives an accountant sufficient flexibility to reflect the consumption of goodwill and
reduces the possibility of earnings management (Jennings, LeClere, & Thompson, 2001; Wines et al., 2007).

Notwithstanding these advantages, much of academic research suggested that the systematic amortization of goodwill is inappropriate accounting treatment. This is because it is arbitrary to decide the useful life of goodwill and the precise pattern for measuring its consumption (Alfredson, Leo, Ruth, Pacter, & Radford, 2005). In addition, some opponents claim that amortization expense creates a “double charge” in the income statement (Elliott & Elliott, 2002). For example, the efforts to maintain and develop goodwill such as training, promotion, and advertising are already incurred by the entity in its income statement (Elliott & Elliott, 2002). Furthermore, it has been argued that it is difficult for a manager to convince outside shareholders that an acquisition is a good decision (Scott, 2012). This is because amortization expenses lead to reduced future profits subsequent to acquisition (Lewis & Pendrill, 1996).

In summary, the amortization approach fails to provide a faithful representation of the underlying economic attributes of goodwill (Lapointe-Antunes et al., 2009). As a reaction, standard setters have decided to replace the practices of arbitrary amortization with the impairment approach. This approach is described in the next section.

2.2 IFRS Accounting for Goodwill

According to the standard, when a particular company acquires another in a business combination transaction, the acquisition method of accounting under MFRS, Business
Combinations, necessitates, in essence, the fair assessment of: (1) the acquirer’s transferred consideration, (2) the amount of any non-controlling interest in the acquiree, and (3) the fair value of the acquirer’s formerly held equity interest in the acquiree. Goodwill is then the excess of these amounts over the net of the acquisition-date fair values of the identifiable assets acquired and the liabilities assumed (MFRS 3, para. 32). Subsequently, the acquirer should allocate the acquired goodwill to cash-generating units (CGUs) that are expected to take advantage of synergies (MFRS 136, para. 80). This is particularly important because goodwill cannot produce cash flows independently of other groups of assets (Ernst & Young, 2010). Hence, to review goodwill for impairment requires its allocation to a CGU (Ernst & Young, 2010). CGU is defined as “the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets” (MFRS 136, para. 6).

When allocating goodwill to a CGU, due care should be exercised on how management monitors that goodwill. According to MFRS NO 136, the CGUs should represent the lowest level within the company. MFRS 136 also indicates that CGUs should be no larger than an operating segment as explained in MFRS 8, Operating Segments before aggregation (MFRS 136, para. 80). The possible reason behind such a requirement is that the levels of identifying segments for financial reporting are relatively broad. These levels would typically be at aggregations substantially above the individual CGU level (Wines et al., 2007). When substantial aggregation is present, the problem is that potential impairments on losing assets might be cancelled by unreported increases in the
value of profitable ones (PricewaterhouseCoopers, 2010). Thus, managers can delay or even avoid recognising goodwill impairments (Carlin et al., 2009a).

Once goodwill is recognized, the standard requires the entity to measure it at acquisition cost less accumulated impairment charges. In addition, the entity should review goodwill at the end of each reporting period or even more frequently if there are indicators that its value might be declining (MFRS 136, para. 9). For instance, if an indication exists, then an entity should perform a formal impairment review by comparing the carrying amounts of each CGU with its recoverable amount (MFRS 136, para. 88). If, as a result of this review, the carrying amount of cash generating unit exceeds its recoverable amount, then an impairment loss should be recognized (MFRS 136, para. 59).

The recoverable amount is defined as “the higher of its fair value less costs to sell and its value in use” (MFRS 136, para. 6). This indicates that two methods exist to estimate the recoverable amount of cash generating units, namely, fair value less cost to sell and value in use (VIU). The former is defined as “the amount obtainable from the sale of an asset or cash-generating unit in an arm’s length transaction between knowledgeable, willing parties, less the costs of disposal”, while the latter is defined as “the present value of the future cash flows expected to be derived from an asset or cash-generating unit” (MFRS 136, para. 6). It is important not to assume the applicability of fair value less cost to sell in all cases. Specifically, when active and liquid markets are not available, “mark-to-model” accounting must be adopted by managers to determine the recoverable amount of CGUs (Ball, 2006; Wines et al., 2007).
In the final analysis, when recognising an impairment loss is inevitable, the carrying amount of a cash-generating unit should be reduced to its recoverable amount. If the amount of the impairment loss is greater than the carrying amount of the goodwill, then the excess value should be allocated to the remaining CGUs on a pro-rata basis based on the carrying amount of each unit (MFRS 136 para 104). Figure 2.1 below summarizes the IFRS impairment reviewing approach.
Figure 2.1
Summary of IFRS impairment reviewing approach
Source: (Ernst and Young (2011).
2.3 Sources of Managerial Discretion in Impairment Approach

Goodwill impairment reviewing is a complex task in accounting that requires management to apply professional judgment and estimates (KPMG, 2014). The first source of complexity arises from lack of clear guidance for identifying which CGUs should have goodwill allocated to them (Chao & Horng, 2013). Particularly, the standard indicates that goodwill should be allocated to CGUs that represent the lowest level within the entities at which goodwill is monitored for top management's aims; and be smaller the operating segments (MFRS 136, para 80). This implies that no definitive guidance exists on whether CGUs represent a particular branch, division and/or subsidiary (Qasim et al., 2013). Hence, it could be said that a large company with several subsidiaries, divisions and/or branches faces a big challenge when allocating goodwill to CGUs (Wines et al., 2007). Thus, it comes as no surprise that some companies argue that allocating goodwill based on operating segments could simplify the process of the impairment test (KPMG, 2014).

Furthermore, MFRS No. 136 requires for the purposes of impairment review that goodwill acquired in a business combination be allocated to CGUs that are expected to take advantage of synergies subsequent to acquisition. However, Watts (2003) warns that if there are synergies among the CGUs, then allocating goodwill to the CGUs is meaningless and arbitrary. This is because synergies mean joint costs and benefits that are similar to those found in the Managerial Accounting textbook (Watts, 2003). Thus, it is likely that a decline in the performance of one unit could result in a decline in another unit (Jarva, 2009). Watts (2003) further argues that unless goodwill can be sold
separately from the business, estimating its value involves joint costs and benefits. He concludes that the Financial Accounting Standards Board (FASB) overlooked that problem (Watts, 2003).

In line with these arguments, research indicates that managers of firms with multiple CGUs have substantial opportunities to deliberately manipulate the amounts and timing of goodwill impairments (Qasim et al., 2013). For example, in order to generate impairment loss, managers can allocate goodwill to underperforming or overvalued CGUs. On the other hand, they can allocate goodwill to outperforming or undervalued CGUs to avoid goodwill impairment (Chao & Horng, 2013; Ramanna & Watts, 2012). Consequently, the process of reviewing goodwill for impairment at CGU is cumbersome (KPMG, 2014), and allows managers to “pick-and-choose” CGUs that satisfy their own private interests (Massoud & Raiborn, 2003).

The second source of flexibility is related to the ongoing debate over estimating the recoverable amount for CGUs containing goodwill (Qasim et al., 2013; Wines et al., 2007). As discussed earlier, the recoverable amounts of CGUs are computed with reference to higher fair value less costs to sell and value in use (Wines et al., 2007). In Malaysia, a lack of active and liquid markets exist upon which to rely on fair values less costs to sell when calculating the recoverable amounts of CGUs (Carlin et al., 2009a). This implies that “mark-to-model” accounting should be adopted by managers to estimate their recoverable amounts (Ball, 2006; Wines et al., 2007). For example, managers are required to determine the inputs into the discounted cash flow analysis. These inputs
include establishing an appropriate discount rate that reflects the risks of CGUs and making forecasts about future cash flows (PricewaterhouseCoopers, 2010). However, due to imperfect pricing models, such a technique may introduce noise and imperfect estimates of model parameters (Ball, 2006). For instance, managers can manipulate the estimates used in calculating the recoverable amount of CGUs in an upward direction to avoid goodwill impairments. By contrast, they can manipulate the estimates used to measure the recoverable amounts of CGUs downward to overestimate the amount of goodwill impairment (Beatty & Weber, 2006; Wines et al., 2007).

To conclude, the processes of conducting goodwill impairment testing is complex, time-consuming, and heavily reliant on managers’ professional judgment (KPMG, 2014). Thus, it is reasonable to believe that some companies still favor the straight line systematic amortization since this method would ensure consistency, simplicity, and prudence (KPMG, 2014).

2.4 Historical Review of Accounting for Goodwill in Malaysia

During the last century, there were no binding standards existed to govern goodwill accounting by Malaysian firms (Abdullah et al., 2004; Carlin et al., 2009a). In the absence of binding standards, various methods were used to account for goodwill (Tong, 2012). These methods ranged from capitalisation of goodwill as a permeants asset to immediate write off against reserves in the date of business combination (Susela, 1999). As firms were free to choose the accounting practice with respect to goodwill, consistency and comparability were poor (Carlin et al., 2009a).
Historically, the earliest attempt to tackle accounting for goodwill was in 1971, when the Malaysian Association of Certified Public Accountants (MACPA), which is now known as the Malaysian Institute of Certified Public Accountants (MICPA), established a technical committee to act on a letter received from the Bank Negara (Susela, 1999). The primary objectives of the letter were to provide accounting practitioners with guidance on how to account for and evaluate goodwill (Carlin et al., 2009a). Even though the goodwill standard had been on the agenda of the MACPA technical committee since 1971, no action was taken to tackle it until 1987 (Susela, 1999).

In 1987, the Malaysian Institute of Accountants (MIA) attempted to formalize standard governing accounting for goodwill (Carlin et al., 2009a). Hence, it became a subject of joint discussion paper between the MIA and MACPA (Carlin et al., 2009a; Susela, 1999). The proposed accounting treatment in the discussion paper was equivalent to the U.K. SSAP 22, Accounting for Goodwill. Accordingly, capitalization of goodwill with systematic amortization through the income statement was permitted, but it was preferable for a company to write off goodwill against reserves during acquisition period (Carlin et al., 2009a; Tong, 2012). Nevertheless, the views of participants presented in the discussion paper were diverse. Consequently, the councils of the MIA and MACPA decided to postpone the establishment of a standard until the view of world standard setters on goodwill accounting become clear and consistent (Carlin et al., 2009a; Tong, 1997).
In the late of 1980s, activity in mergers and acquisition increased among Malaysian firms. These activities reinforced the heated debate on the issue of goodwill accounting (Tong, 2012). Consequently, the Capital Issues Committee (CIC), which is part of the Ministry of Finance, decided to address the issue associated with goodwill in early 1991. This was done through inclusion in its guidelines subsection 17.51. The guidelines stated that goodwill should be treated using accounting methods satisfactory to the CIC. Although subsection 17.51 provided a good step in resolving the issue of accounting for goodwill, it failed to answer some important questions as recognition and subsequent valuation techniques for intangible assets (Carlin et al., 2009a; Susela, 1999).

Moreover, further action occurred when MIA and MACPA conducted a survey to explore the opinions of members and practitioners on the preferred treatment in accounting for goodwill (Susela, 1999). The survey revealed that most respondents preferred reporting goodwill at cost but with systematic amortization against income statement (Tan, 1991, as cited in Susela, 1991). Based on the questionnaire results, an exposure draft (ED), MAS 6, Accounting for Goodwill, was published by the MIA and MACPA in 1992. The basic plan was that the standard would be made effective on 1 January 1993 for financial statements (Tong, 1997). The MAS 6 requires goodwill to be reported as an asset in the statement of financial position and amortized over a period of twenty five years using a straight line method (Abdullah et al., 2004). However, due to the disagreement and tension between the MACPA and MIA, the implementation of the standard was deferred to 1 January 1997 (Susela, 1999). Subsequently, the Ministry of Finance deferred the standard to additional two years (Abdullah et al., 2004).
In the late twentieth century, accounting regulations in Malaysia had undergone significant changes with the formation of a two-tier framework for financial reporting (Muniandy & Ali, 2012). This framework include regulations developed by the Financial Reporting Foundation (FRF) and the Malaysian Accounting Standard Board (MASB) (Muniandy & Ali, 2012). The MASB were formed under the Financial Reporting Act (FRA) 1997 to establish and issue acceptable accounting standards in the country (Kwong, 2010). Hence, MAS 6 was deferred waiting for any action from the MASB (Abdullah et al., 2004). Subsequently, MASB 22, Business Combination, was issued by MASB to become effective on 1 January 2001. Unfortunately, the standard failed to provide detailed guidance addressing the problem associated with goodwill (Abdullah et al., 2004; Carlin et al., 2009a). Thus, it can be said that no significant developments were made in accounting for goodwill over three decades (Carlin et al., 2009a).

The debates in the early 2000s led to formation of Exposure Draft (ED) 28, Accounting for Goodwill. (ED) 28 required purchased goodwill to be capitalised and amortized over a period of twenty years using the straight line method similar to IAS 22 (revised version) (Abdullah et al., 2004). However, this ED was withdrawn in 2002 as a reaction to the decision of the Financial Accounting Standards Board (FASB) concerning the shift from amortization to annual impairment review (Abdullah et al., 2004).

In 2004, a serious strategic decision was made when the Malaysian Accounting Standards Board (MASB) adopted the International Financial Reporting Standards (IFRS) (Muniandy & Ali, 2012). The convergence was expected to increase comparability,
consistency and transparency of financial statements among companies. This would, in turn, help in improving market efficiency, ensuring greater market liquidity and decreasing the cost of capital, which ultimately might aid in alleviating the trade barriers between different countries (Brown, 2011). Consequently, MASB issued a localised version of IFRS, and firms were expected to adopt these standards beginning 1st January, 2006 (Carlin et al., 2009a).

On 1 August 2008, the Financial Reporting Foundation and MASB published a statement on their plan for full convergence of the MFRSs with IFRSs as issued by IASB by 1 January 2012 (Deloitte, 2015). Subsequently, the MASB released the approved MFRS Framework, which was known as the Malaysian Financial Reporting Standards (MFRSs) on 19 November 2011. The accounting standards issued by the MASB were literally word-for-word identical to those of the IFRSs (KPMG, 2011), and all firms were required to apply the MFRS framework at the beginning of 2012, except for private ones (MASB, 2015).

2.5 Overview of the Malaysian Code on Corporate Governance

Typically, codes on corporate governance have been developed by professional institutions to address the deficiencies in a country's governance systems (Aguilera & Cuervo-Cazurra, 2009; Zattoni & Cuomo, 2008). These codes aimed to improve shareholders confidence, to constrain managerial opportunistic behavior, and to ensure that financial statements reflected the underlying economic performance of the firm (Chen & Zhang, 2014; Vithiatharan & Gomez, 2014). Therefore, outsiders tend to
exercise substantial pressure to support the adoption of codes of corporate governance (Aguilera & Cuervo-Cazurra, 2004)

In Malaysia, the Asian economic crisis in 1997/1998 as well as the highly publicized scandals around the world revealed the urgent need for companies to enhance corporate governance mechanisms in order to restore shareholders’ confidence in the reliability of accounting information (Hashim & Devi, 2008a). In line with this view, the World Bank (1998) argued that:

Corporate governance [in East Asian countries] has been characterised by ineffective boards of directors, weak internal control, unreliable financial reporting, lack of adequate disclosure, lax enforcement to ensure compliance, and poor audits. These problems are evidenced by unreported losses and understated liabilities. Regulators responsible for monitoring and overseeing such practices failed to detect weaknesses and take timely corrective action (pp. 67-68).

As a result of these issues, significant pressure was put on Asian countries including Malaysia to enhance their existing corporate governance mechanisms as soon as possible (Nowland, 2008). Subsequently, several initiatives were proposed and implemented in Malaysia to foster “good” corporate governance practices. One of these initiatives was the Malaysian Code on Corporate Governance (MCCG), which was developed by the Working Group on Best Practices in Corporate Governance (JPK1) and subsequently approved by the high level Finance Committee on Corporate Governance (Securities Commission, 2000). The MCCG was completely launched on January 2001 (Hashim & Devi, 2008a).
The recommendations of the code comprised four key parts whose objectives were to achieve optimal governance framework (Securities Commission, 2000). These parts included: (1) principles of corporate governance, (2) best practices in corporate governance, (3) principles and best practices for other corporate participants, and (4), the explanatory notes (Securities Commission, 2000). Part 1 addresses boards of directors, remuneration of directors, investors, and corporate accountability and audits (Securities Commission, 2000). Part 2 gives the firms a set of guidelines that aim to help them design appropriate approaches for their corporate governance structure (Securities Commission, 2000). Part 3 addresses other corporate participants such as institutional shareholders and external auditors and their role in corporate governance (Abdul Wahab, How, & Verhoeven, 2007). Finally, Part 4 provides explanatory notes to the principles and best practices set out in Parts 1 and 2 (Securities Commission, 2000).

The code is derived from the approach applied by the British Hampel Committee (Ow-Yong & Guan, 2000). Firms should not adhere strictly to the requirements of the code but should have flexibility in implementing their own views on corporate governance (Germain, Galy, & Lee, 2014). This implies that, rather than being a compulsory law, such as the U.S Sarbanes-Oxley Act 2002, the MCCG is based on the rule of the "comply or explain" voluntary approach. Thus, firms are obliged to illustrate in their financial reports, the extent to which they have complied with the best practices and must explain any conditions justifying departure from best practices (Securities Commission, 2000). The logic behind this approach is that one-size-fits-all is not an optimal corporate governance choice for a firm and and what are the exact conditions that have led to non-
compliance (Arcot et al., 2010). By giving firms flexibility in applying the code, they can embrace the genuine spirit of the code, rather than the letter of the code (Arcot et al., 2010). On the other hand, a mandatory regime would result in a “box-ticking” approach that did not allow firms to deviate from rules and would not promote shareholders’ trust (Arcot et al., 2010).

In 2007, the MCCG was revised to improve the effectiveness of audit committees and the board of directors. The main amendments include clarifying the eligibility criteria for the appointment of board/audit committee members, strengthening the responsibility of the nominating committee, and mandating publically listed firms to establish internal audit functions. The revised MCCG (2007) further reinforced the aspect of audit committees independence, and the frequency of private meetings between audit committees and external auditors (Securities Commission, 2007).

Malaysia has continued improving its code on corporate governance. In July 2011, the Corporate Governance Blueprint 2011 was released by the Malaysian Securities Commission to enhance the corporate governance framework in upcoming years (Governance Newsletter, 2011). The first deliverable output of Blueprint 2011 was the Malaysian Code on Corporate Governance 2012 (MCCG 2012), which was published on March 2012 and was effective from 31 December 2012. The MCCG 2012 attempts to apply the majority of the recommendations outlined in Blueprint 2011 (Securities Commission, 2013). Furthermore, MCCG 2012 abolishes the previous Malaysian Code on Corporate Governance issued in 2007.
Key differences exist between the new code and its predecessor. Although the Code had first been published in 2000 and was improved seven years later, the MCCG 2012 was not merely an update (The Star News, 2012). First, the new code issued new principles and recommendations whose objectives were to improve corporate boards' effectiveness by strengthening their composition, enhancing their independence, fostering the commitment of directors, and recognising their role as active and responsible fiduciaries. Furthermore, the code encourages firms to formulate policies and procedures ensuring compliance with the disclosure requirements stipulated by the Bursa Malaysia. It also places emphasis on respecting shareholders rights (Securities Commission, 2013).

Second, the structure of MCCG 2012 is simpler and clearer than its predecessor (Pasricha, 2012). It comprises 8 principles and 26 recommendations on good corporate governance practices. The principles summarize broad concepts underlying effective corporate governance that firms should adopt when implementing the recommendations. The recommendations are standards, and each recommendation is explained through commentary. The principles under the current code include: (1) establish clear roles and responsibilities, 2) strengthen the composition of the board, 3) reinforce independence of the board, 4) foster commitment, 5) uphold integrity in financial reporting, 6) recognize and manage risks, 7) ensure timely and high quality disclosure, and 8) strengthen the relationship between company and shareholders (Securities Commission, 2012).

Finally, the new code seems to rely more on statutory law and Bursa Malaysia listing requirements to implement its principles and recommendations. Specifically, several key
recommendations aligning with the CG Blueprint 2011 and MCCG 2012 have been implemented through changes made to Bursa Malaysia Listing Requirements while others require changes to the law (Yit, 2013). With respect to content, the new code adopts some of the best practices of the 2007 revised code and also introduces additional principles and recommendations to increase the effectiveness corporate governance. These principles and recommendations are discussed below.

1. Responsibilities and roles of the board. The new code requires corporate boards to institute ethical standards through code of conduct and ensure the implementation of relevant internal mechanisms to ensure strict compliance with all provisions of the code. To achieve this, attention has to be given to the environmental settings and the social and governance characteristics of business and its policies for improving sustainability. Moreover, companies are encouraged to enact board charters and ensure their periodic review. The charter has to include important features of the company’s primary values. Division of powers and responsibilities of the board and management should also be included in the charter including established committees, and responsibilities of the chairman and the CEO.

2. Strengthening of the board’s composition. MCCG 2012 recommends the establishment of a nominating committee, exclusively comprising non-executive directors, and the majority of them must be independent. The nominating committee should be responsible for developing, maintaining and revisiting the criteria to be adopted for recruitment and the director’s annual assessment and selection of suitable
females who will sit on the company’s board. In addition, the code mandated the creation of a committee to establish proper and transparent compensation policies that will attract new and retain existing directors.

3. Reinforce Independence. Different persons must hold the chairman and CEO positions, and the chairman of the board must be a non-executive board member. Also, the tenure of independent directors must be capped for an accumulative period of nine years. After completing the nine-year period, the director may remain in the company as a non-independent director after retention has been justified and with owners’ approval.

4. Foster commitment. The code requires the board to map out expectations in a timely manner the obligations for membership and procedures for accepting new director. Directors are required to notify the board chairman before accepting a new directorship appointment. Such notification must include the time commitment expected of him/her in the new appointment. The Nominating Committee is required to consider such new appointments during the annual director’s assessment.

5. Timely and high qualitative disclosure. The board is required ensure the firm has appropriate corporate disclosure guidelines and procedures. These guidelines and procedures must be practical and should include response from management to ensure strict compliance with the corporate disclosure requirements set out in the listing requirements of the Bursa Malaysia.
6. Association between firm and shareholders. The board should boost shareholder participation in the general meetings and resolutions by improving voting rights. The chairman of the board should notify shareholders of their voting rights at the start of the general meeting. The board is also encouraged to put in place substantive resolutions to vote by way of polls and make announcements of the comprehensive results displaying the number of cast votes for and against every resolution.

2.6 Main Challenges and Critics to Corporate Governance Reforms in Malaysia

Capital markets in Western countries, such as those that generally exist in United Kingdom and the United States are characterised by diffused ownership (Hashim & Devi, 2008a). The shareholders may neither have enough equity ownership nor expertise in directing the firm activities. Hence, corporate managers are considered to be the best persons to manage the firm (Salim, 2006). However, while the primary interest of shareholders is to maximize return on assets and share return, managers have a broad range of interests, such as bonus compensation, prestige and other needs (Wolk et al., 2013). Therefore, an agency problem arises mainly from the conflict of interests between outside shareholders and inside managers (Ching et al., 2006). To minimize these conflicts, agency theory recommends establishing internal and external governance mechanisms (Tariq & Abbas, 2013). A major problem of corporate governance in Western countries is to mitigate the conflict between dispersed shareholders and powerful managers (Enriques & Volpin, 2007).
In contrast, Malaysian companies are characterised by a high level ownership concentration and the wide presence of family-controlled business (Claessens, Djankov, & Lang, 2000; Salleh & Stewart, 2012). The main agency problem emerges as a consequence of the conflicting interests between controlling shareholders and minority shareholders (Claessens & Fan, 2002). If a small number of owners effectively control the firm, then the risk of expropriating the best interests of minority shareholders by majority shareholders is high (Ching et al., 2006). This control is further facilitated through pyramid schemes or cross shareholding between firms (Chen, 2013). Under such conditions, the divergence between control and cash flow rights is significant (Ow-Yong & Guan, 2000). Therefore, corporate governance in Malaysia is seen as an important mechanism to prevent dominating shareholders from engaging in activities that are detrimental to the best interests of minority shareholders (Liew, 2008). In line with this argument, Tam and Tan (2007) argued that protecting the interests of minority shareholders remains a crucial issue to be solved in Malaysia because controlling owners continue to exert their power via ownership concentration and participation on the board of directors.

Furthermore, it has been argued that many politically favored firms and destructive nepotism and cronyism exist in Malaysia (Chen, 2013; Gul, 2006; Vithiatharan & Gomez, 2014). For example, Liew (2007) claims that special privileges and exemption from rules and regulations have been given to politicians and political-related parties. When political interests interfere with corporate decisions, the wealth of minority shareholders may be harmed (Salim, 2006). The obvious implication is that strong
enforcement of corporate governance reforms is unlikely to occur in an environment in which significant political influence on firms is present (Liew, 2007).

To reform the capital markets in Malaysia, the MCCG focuses on strengthening the position of non-executive directors by imposing the rigorous independence of outside directors. However, the effectiveness of independent non-executive directors remains doubtful. Given high ownership concentration in Malaysia, the power of the board of directors is derived from controlling owners. Hence, expecting the board to challenge controlling investors is unrealistic. This, in turn, will decrease the effectiveness of the board of directors (Rajagopalan & Zhang, 2008).

The main reason for the ineffectiveness of corporate governance reforms in Malaysia is that many initiatives have been primarily based on Anglo-American regimes, which are unsuitable for the local context (Liew, 2007, 2008; Vithiatharan & Gomez, 2014). This is because the differences in the ownership structure, as well as cultural and political environments, denote that the root of the problems and solutions to them differ across nations (Salim, 2006). For example, the traditional conflict between owners and managers in an Anglo-Saxon environment may not be a concern in the capital market in which the excessive powers of dominating owners create the major agency problem (Salim, 2006).

Globalisation or more particularly, global capitalism was the invisible hand behind corporate governance reforms in Malaysia (Liew, 2008). This fact is corroborated by
anecdotal evidence from former Malaysian Prime Minister, Mahathir Mohamad, who stated: ‘we try to follow [the IMF programmes] not because we think the IMF is right, but because if we don’t then there will be a loss of confidence….So we try to show that we are with the IMF’(Shameen & Oorjitham, 1998, p. 4) as cited from (Liew, 2008).

In summary, the nature of the corporate governance problems may vary from country to country. Hence, policy makers should note that applying governance reforms without considering the country-specific legal and cultural environments may impede the achievement of the desired goals of changes (Machuga & Teitel, 2009).

2.7 Summary
This chapter outlined the institutional background to the study. It began with a review of the past treatment of goodwill followed by a description of impairment approach under MFRS. The chapter proceeded with a brief overview of the historical development of accounting for goodwill in Malaysia. The chapter then described the Malaysian Code on Corporate Governance (MCCG). Finally, it provided important features related to the Malaysian capital markets. The next chapter reviews the prior literature relevant to this study.
CHAPTER THREE
LITERATURE REVIEW

3.0 Overview of the Chapter

The chapter addresses the relevant literature relating to this study. It comprises the following sections. Section 3.1 outlines the literature concerning the value relevance study. Section 3.2 discusses the literature related to the determinants of goodwill impairments. Section 3.3 reports relevant evidence on the code of corporate governance. Lastly, Section 3.4 summarizes the contents of the chapter.

3.1 Value Relevance Study

One important theme in capital market research is value relevance studies. An accounting information is considered as value relevant if it is able to make a difference in the decisions of users (Scott, 2012). To be capable of making a difference in decisions made by shareholders, it should have predictive value, confirmatory value or both (MASB, 2011). Financial amount has predictive value if it can be employed as an input to processes used by shareholders to forecast future cash flow prospects. Whilst accounting information has confirmatory value if it provides confirms to transactions that have occurred (MASB, 2011).

Major accounting standard-setting bodies have adopted the decision-informativeness approach when establishing accounting standards (Chen et al., 2001; Scott, 2012). This is apparent by their conceptual framework for financial reporting, which provides a clear
recognition of the role of accounting numbers in generating relevant information to shareholders (Scott, 2012).

Furthermore, one important metric to measure accounting quality is the ability of financial information to explain a firm's market value of equity (Barth, Landsman, and Lang, 2008). By conducting value relevance studies, scholars can expand knowledge about the relevance and reliability of accounting numbers as summarized in a firm's equity value (Barth, Beaver, & Landsman, 2001). Thus, they can provide useful insight to standard setters' deliberations on accounting rules (Barth et al., 2001). In addition, disclosing relevant financial statements to the shareholders will lead to improve their decision-making and thus to reduce the firms' cost of capital (Scott, 2012; Wolk et al., 2013).

According to Holthausen and Watts (2001), value relevance studies can be classified into three streams of research (Holthausen & Watts, 2001). The first stream includes relative association studies. These studies relied on the coefficient of determination $R^2$ to compare the association between firms' market value or changes in market value and alternative bottom-line measures (Holthausen & Watts, 2001). The financial information with the greater coefficient of determination $R^2$ is considered as being more value-relevant to market participants. For example, Lee and Lee (2013) examined whether the value relevance of accounting information for firms whose financial statements are audited by one of the Big 4 auditors is higher than that audited by non-Big 4 firms. To answer this issue, they run the regression separately for two subgroups based on whether
the annual statements are attested by Big 4 auditors or not. Their findings reveal that the coefficient of determination $R^2$ for clients of Big 4 auditors is statistically larger than that for clients of non-Big 4 auditors. However, this study does not compare the value relevance of goodwill impairments with alternative measure. Hence, the relative association approach is deemed to be not applicable to this study.

The second stream is marginal information content studies. These types of studies attempt to examine whether a specific accounting amount contributes to the information set available to shareholders (Holthausen & Watts, 2001). They employ event study methodology to determine whether the stock price responses to the announcement of a specific event (Holthausen & Watts, 2001). The significant market reaction of security price is considered as evidence of value relevance (H.-L. Lee & Lee, 2013). For example, Zang (2008) reported a significant negative stock market reaction to unexpected goodwill impairment charges, especially for highly leveraged firms. Even though the marginal information content studies are useful. They, however, suffer from the possible existence of other contemporaneous information during the announcement periods (Goncharov et al., 2006). Quite possibly, market participants have anticipated the accounting information prior to its public release (Beaver, 2002). Therefore, the empirical implementation of an event-study approach may be inappropriate for this current study.

Finally, the third stream involves incremental association studies. Typically, these studies aim to analyse whether particular components of the financial reports are "priced" in the sense of being related with the market valuation of the company (Wolk et al., 2013). If
the accounting amount of interest is useful in explaining the level or change of security
prices (over a long period) given the other variables in the model, then it is deemed to be
value relevant to shareholders (Holthausen & Watts, 2001). In other words, the
accounting number is value relevant if the estimated regression coefficient is statistically
different from zero (Lee & Lee, 2013). Thus, a nonzero coefficient for goodwill
impairments suggests that these non-cash charges are useful in explaining stock prices or
returns and convey value-relevant information to shareholders. Thus, this study performs
an incremental association study to examine the value relevance of goodwill
impairments. The advantage of these studies is that they do not require the specific
announcement date of the financial statement (Ge, Drury, Fortin, Liu, & Tsang, 2010).

It is important to indicate, that value relevance studies differ from other studies in
numerous ways. First, they excessively focus on equity investors, who are not the only
users of accounting reports (Barth et al., 2001). Second, although value relevance studies
provide fruitful insights for standard setters, they do no incorporate all of the factors in a
way that the standard setters must consider in establishing standards such as complex
social welfare and other real world considerations (Barth et al., 2001). Therefore, drawing
normative conclusions or making specific policy recommendations from these studies is
difficult (Barth et al., 2001).

Third, value relevance studies rely on various valuation models to structure their
empirical tests (Barth et al., 2001). For example, Ohlson's (1995) valuation framework,
which models firm value as a function of its book value equity, accounting earnings and
“other information”. Finally, these studies depend on the assumption that the capital markets are reasonably efficient (Holthausen & Watts, 2001). This is due to the difficulty in justifying the relationship between stock price movements and accounting information in the absence of an efficient market (Deegan & Unerman, 2011). In other words, without the assumption of market efficiency, researchers are unable to explain how and why stock prices change to reflect accounting information (Deegan & Unerman, 2011). In Malaysia, the evidence from empirical research has shown that security prices are adjusted in an efficient manner with respect to dividend and earnings news, suggesting that the Malaysian stock market is relatively semi-strong in its efficiency (Hussin, Ahmed, & Ying, 2010). This implies that the market is reasonably efficient in examining the value relevance of goodwill impairment (Holthausen & Watts, 2001). To conclude, value relevance research is considered as an important field in market-based research. The next section reviews the literature concerning the usefulness of goodwill impairment losses to shareholders.

3.1.1 Empirical Research on the Value Relevance of Goodwill Impairments

Several studies in Malaysia document that goodwill impairment losses are influenced by managerial agency motives to behave opportunistically (Abdul Majid, 2015; Haron & Atan, 2010; Mohd-Saleh & Omar, 2014; Omar et al., 2015). Nevertheless, all of these studies fail to consider their potential value relevance information to shareholders. Further, they suggest the impairment-only approach reduces the quality of the financial statement (see, for example, Omar et al., 2015). However, managers may not always employ the reporting discretion in an opportunistic manner. They could use this
discretion to communicate their privileged information to markets (Ramanna & Watts, 2012). Consequently, there is a long-standing debate and controversy about whether the impairment-only approach is appropriate (Al-Hiyari, Abdul Latif, & Amran, forthcoming).

The objective of the current study is to examine the value relevance of goodwill impairment. An exploration of this issue is most closely related to AbuGhazaleh et al. (2012) investigation of the association between reported goodwill impairments and equity market values. Using a sample of the top 500 UK firms from 2005 to 2006, AbuGhazaleh et al. (2012) found evidence that goodwill impairments provide value-relevant signals to outside shareholders, implying that IFRS 3 has enhanced the quality of reported goodwill impairments. They concluded that the available flexibility under IAS 36 has allowed managers to reliably convey their expectations regarding firm's future performance to markets. However, this study differs from AbuGhazaleh et al. (2012) in several ways. First, using all goodwill listed firms between 2010 and 2014 can mitigate the sample selection bias that arises when the dependent variable is observed only for a restricted, nonrandom sample (Millimet, 2001). Second, this study utilizes fixed effects panel data technique, thereby avoiding biased parameter estimates, as observations are not entirely independent (Ahmed & Duellman, 2007). Finally, the present study extends prior research by using data from the emerging Malaysian capital market.

The uniqueness of Malaysian capital market may have limited the effectiveness of the impairment-only approach. Unlike Western countries, Malaysia is considered as an
unfavorable environment for enforcement of IFRS accounting standards due to the absence of active and liquid markets for several classes of assets, lack of history with complicated accounting rules, weak corporate governance structure, high ownership concentration, and poor shareholder protection (Carlin et al., 2009a; Claessens et al., 2000; Hasnan et al., 2013; Liew, 2008; Muniandy & Ali, 2012). As a result, managers may record goodwill impairments more for self-interest incentives than to reflect firm’s underlying economic conditions (Al-Hiyari et al., forthcoming).

Empirically, numerous scholars have investigated how the shareholders perceive reported goodwill impairments. These studies can be categorized into two main groups. The first group consists of studies that test market reactions to the announcement of impairment charges, and the second group consists of studies that examine the association between goodwill impairments and firms’ equity value.

With respect to the former, previous studies employing event-study approach showed negative stock price reaction to the announcement of impairment charges (Bartov, Lindahl, & Ricks, 1998; Bens et al., 2011; Elliott & Shaw, 1988; Francis, Hanna, & Vincent, 1996; Jarva, 2009; Knauer & Wöhmann, 2015; Li, Shroff, Venkataraman, & Zhang, 2011; Riedl, 2004; Strong & Meyer, 1987; Zang, 2008; Zucca & Campbell, 1992). For example, Zang (2008) reported a significant negative stock market reaction to unexpected goodwill impairment charges, especially for highly leveraged firms. Bens et al. (2011) found that, despite a decline in the value relevance of goodwill impairment in post-SFAS 142 periods, shareholders react more strongly to announcements of
impairments charges reported by large firms with greater informational asymmetries. Hirschey and Richardson (2002) demonstrated that shareholders perceive impairment charges reported by firms with operating losses as conveying more bad news about a firm’s future performance. Knauer and Wöhrmann (2015) showed that shareholders respond more negatively to the bad news of goodwill impairments when managers provide an explanation of the events and conditions that led to the disclosure of such impairments. Thus, these studies suggest that goodwill impairments communicate a reduction in the economic value of goodwill to market participants.

Consistent with the argument, a recent study carried out by KPMG (2014) involving in-depth interviews with a group of key stakeholders who have substantial experience in financial reporting revealed that most interviewees cast doubt on the notion that a significant stock price reaction to impairment loss announcements denotes management signaling of private information. Particularly, they claim that such market reactions confirmed the past judgment of value rather than in predicting future value. The underlying assumption of an efficient market is that shareholders may incorporate price-sensitive information regarding impairment charges into security prices prior to recording them in financial reports. Hence, a market may exhibit little reaction to goodwill impairment losses that are typically viewed as confirming past assessments. Moreover, the study suggests that the arbitrary assumptions and estimates about future cash flows associated with poor disclosure about impairment process may make these charges less useful to the market.
Despite such claims, Bostwick, Krieger, and Lambert's (2015) presented evidence that goodwill impairment charges reported by firms in the United States supply a significant and incremental enhancement in the prediction and forecasting of future cash flow, contradicting the argument that goodwill impairments have no predictive value. Therefore, there is a long-standing debate on whether the new impairment approach is used as a means of communicating managers' inside information to capital markets.

Similar to event study approach, inconsistent findings do exist regarding the association between impairment charges and firm equity values. For example, Lapointe-Antunes et al. (2009) found a significant negative association between goodwill impairment losses and security prices even though these losses are not charged to the statement of profits and losses. Xu et al. (2011) documented that shareholders generally viewed impairment charges as relevant information and that these non-cash charges conveyed value-decreasing signals for U.S. firms' future cash flows, especially for profitable firms. On the other hand, Hamberg and Beisland (2014) indicated that goodwill impairments are not associated with returns and prices in the period after Swedish firms adopted the IFRS. They attributed the lack of value relevance of goodwill impairments to the opportunistic behavior of management. Furthermore, Hulzen et al. (2011) showed evidence that amortization expenses are more value relevant than impairment losses in European context. They recommended that IASB should publish extra guidelines to help firms in performing reliable impairment testing, which may in turn facilitate the process of understanding financial statements by the shareholders.
Based on the discussion, the conclusion can be drawn that most prior studies examining the association between goodwill impairment and firms' equity value tend to focus on countries with a developed capital market. Even so, results from these studies are inconsistent. Thus, this study extends prior research by examining the value relevance of goodwill impairment in Malaysia. Table 3.1 below summarizes the prior literature on the value relevance of goodwill impairments.
Table 3.1
Summary of the literature about the value relevance of goodwill impairments

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Period</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bostwick et al. (2015)</td>
<td>U.S.</td>
<td>2001-2009</td>
<td>Goodwill impairment charges provide useful information relevant to cash flow forecasting and prediction.</td>
</tr>
<tr>
<td>Chalmers et al. (2011)</td>
<td>Australia</td>
<td>1999-2008</td>
<td>Goodwill impairment reported after the implementation of IFRS have a greater association with firms' investment opportunities (IOS) than prior to the IFRS period.</td>
</tr>
<tr>
<td>Hamberg and Beisland (2014)</td>
<td>Swedish</td>
<td>2001–2010</td>
<td>Reported goodwill impairment charges lost value relevance subsequent to implementation of IFRS.</td>
</tr>
<tr>
<td>Hamberg et al. (2011)</td>
<td>Sweden</td>
<td>2004</td>
<td>Goodwill intensive firms experience higher abnormal returns.</td>
</tr>
<tr>
<td>Hulzen et al. (2011)</td>
<td>European</td>
<td>2001-2010</td>
<td>Goodwill amortization is more value relevant than impairment charges.</td>
</tr>
<tr>
<td>Knauer and Wöhrmann (2015)</td>
<td>U.S and Europe</td>
<td>2005-2009</td>
<td>Shareholders react more severely to the release of goodwill impairments when an unverifiable internal explanation is provided and less severely when a verifiable external explanation is given.</td>
</tr>
<tr>
<td>Lapointe-Antunes et al. (2009)</td>
<td>Canada</td>
<td>2004</td>
<td>Significant negative association between impairment charges and equity market values.</td>
</tr>
</tbody>
</table>
Table 3.1: continued

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Period</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee (2011)</td>
<td>U.S</td>
<td>1995-2006</td>
<td>Improvement in the ability of goodwill impairments to predict future cash flows since the FASB adopted SFAS 142.</td>
</tr>
<tr>
<td>Li et al. (2011)</td>
<td>U.S</td>
<td>1996-2006</td>
<td>The information content of goodwill impairments decreased after implementation of SFAS 142.</td>
</tr>
<tr>
<td>Xu et al. (2011)</td>
<td>U.S</td>
<td>2003-2006</td>
<td>Goodwill impairments are viewed by shareholders as communicating managers’ bad news, especially for profitable firms.</td>
</tr>
<tr>
<td>Zang (2008)</td>
<td>U.S</td>
<td>2000</td>
<td>Shareholders react more negatively to goodwill impairments reported by high leverage firms than those reported by low leverage firms.</td>
</tr>
</tbody>
</table>
3.1.2 Corporate Governance and the Value Relevance of Goodwill Impairments

Corporate governance has been extensively researched in the field of accounting and other disciplines (Cohen et al., 2004). Previous studies have indicated that effective corporate governance mechanisms can serve to curb managerial opportunisms, to improve firm's financial reporting quality, and to increase firm performance (see, for example, Amran & Che-Ahmad, 2010; Klein, 2002; Vafeas, 2005).

However, whether the value relevance of goodwill impairment losses depends on corporate governance mechanisms is a neglected area of research. Lapointe-Antunes et al. (2009) found improvement in the value relevance of goodwill impairment losses reported by firms with a higher percentage of outside directors and higher financial literacy on the audit committee. However, the generalizability of Lapointe-Antunes et al. (2009) study is limited because special accounting treatments were present in Canada. In particular, their study utilizes a sample during the adoption period of section 3062, which calls upon firms to use a retroactive method as opposed to a cumulative effect method. The retroactive method does not require the goodwill impairments to appear in the profits and losses statement, but rather requires the cumulative effects to be reflected in retained earnings as if the new principle had always been applied. Therefore, generalizing the results outside the Canadian environment is difficult (Lapointe-Antunes et al., 2009).

In contrast, this current study uses data from an emerging market, Malaysia, during years 2010 to 2014, in which firms did not have any special accounting treatments to deal with goodwill. Moreover, unlike Lapointe-Antunes et al. (2009) who regressed only two
governance variables, namely, percentage of financially expert and independent members on the audit committee, the current study creates more a comprehensive measure of governance quality. More precisely, it performs a principal component analysis (PCA) over many governance variables to identify factors that capture governance quality and therefore, to examines the impact of corporate governance mechanisms on the value relevance of goodwill impairments. By doing so, this study could provide a more persuasive conclusion about the role played by corporate governance in influencing shareholders decision-making with respect to unverifiable goodwill impairments.

The motivation to investigate the moderating effects of corporate governance on the usefulness of goodwill impairments arises from greater subjectivity in implementing MFRS 136 and consequently the opportunities for managers to pursue their self-interested behavior. This fact is exacerbated by unsatisfactory compliance with the basic requirements of MFRS 136 (Carlin et al., 2009a; Carlin, Finch, & Laili, 2009b), and lack of activity and liquidity in the Malaysian market, whereby managers may use their estimates and judgments that are less verifiable by shareholders, subject to measurement error by management, and susceptible to creative accounting practices (Landsman, 2007; Song, Thomas, & Yi, 2010; Wines et al., 2007). These issues may exacerbate the information asymmetries between managers and shareholders which, in turn, may result in adverse selections and moral hazards (Landsman, 2007).

Such scenarios could impair shareholder's perceptions regarding reported impairment losses, thus reducing their relevance and reliability. In line with this view, Holthausen
and Watts (2001) argued that, if management has incentives to introduce measurement error or bias, then the lack of verifiability will impair the reliability attribute and the usefulness of the accounting information. Hence, corporate governance mechanisms are important to constrain managers from pursuing opportunistic earnings management and, therefore to make accounting numbers more reliable and useful to shareholders (Habib & Azim, 2008).

Many prior studies have found a significant influence of corporate governance mechanisms on the relationship between accounting information and security prices (see, for example, Alkdai & Hanefah, 2012; Habib & Azim, 2008; Lee, Lin, & Chang, 2011; Song et al., 2010). For instance, Habib and Azim (2008) found a significant improvement in the value relevance of earnings and book value for Australian firms that have strong corporate governance mechanisms. Song et al. (2010) showed evidence based on U.S. data that corporate governance plays a significant role in the value relevance of fair values assets and liabilities level 3 where unobservable, firm-generated amounts are prevalent and information asymmetry is high. Kanagaretnam et al. (2007) showed evidence that the information asymmetry around quarterly earnings announcements is lower in firms with effective corporate governance.

As a result, the expectation is that firms with stronger corporate governance would mitigate the information asymmetries arising from unverifiable impairment tests, leading shareholders to place higher valuation weight to reported goodwill impairment charges
(Lapointe-Antunes et al., 2009; Song et al., 2010). The study devotes the remainder of this section to discussing the corporate governance variables.

3.1.2.1 Discussion of the Corporate Governance Variables

Ammann, Oesch, and Schmid (2011), and Larcker, Richardson, and Tuna (2007) asserted that no well-developed conceptual guidance is present in the accounting literature for selecting the pertinent governance attributes and their relative weights to incorporate in a corporate governance index. Despite that, the current study includes multiple governance variables to summarize the effectiveness of a firm’s corporate governance. As discussed below, these variables encompass characteristics relating to the board of directors, the audit committee, and the ownership structure.

1. Board Independence

The board of directors comprises both inside and outside directors. The inside directors are often derived from the staff of the firms (Kanagaretnam et al., 2007). The outside, also known as independent directors, are independent of management and free from any business or other relationships that could seriously affect their ability to exercise professional judgment. Generally a board with more independent directors is considered to be more effective in fulfilling their monitoring duties (Dey, 2008). The reason behind this is that they have more expertise and also because they have greater incentives to maintain a good reputation in the managerial labour market (Fama & Jensen, 1983). Furthermore, agency theory arguments support the view that a greater proportion of outside directors on boards acts to independently to monitor circumstances for which a
conflict of interest may occur between managers and shareholders (Jackling & Johl, 2009). Hence, the high representation of outside independent directors is viewed as increasing the effectiveness of boards in monitoring functions and exercising greater oversight on behalf of shareholders (Setia-Atmaja, Haman, & Tanewski, 2011). By contrast, if the board is dominated by inside directors, then the decisions made by the board are likely to be biased toward management preferences at the expense of the shareholders (Fama & Jensen, 1983; Fama, 1980). Hence, the presence of outside independent directors is important to maintain effective corporate governance.

In Malaysia, it has been claimed that independent directors are important, wherein controlling shareholders may exert significant pressures on corporate decision-making. For example, Kampel (2012) suggested that having independent directors is critical to balance the myopic decisions that occur sometimes in family-controlled firms particularly as they deal with emotional overlays of personal ties.

In light of these arguments, the Malaysian Code of Corporate Governance indicates that independent non-executive directors should make up at least one-third of the directors on the board. The Code also indicates that an independent director is considered as non-independent, when the sum of his/her cumulative tenure exceeds nine years. Despite this, the board can justify and get approval from shareholders to retain such a person as an independent director in certain circumstances (Securities Commission, 2012).
In supporting the above discussion, numerous studies find that a board with a higher percentage of independent non-executive directors is more likely to constrain management from pursuing opportunistic behavior (Beasley, 1996; Chen, Firth, Gao, & Rui, 2006; Jaggi, Leung, & Gul, 2009; Peasnell, Pope, & Young, 2000; Xie, Davidson, & DaDalt, 2003). Accordingly, the current study recognizes that the greater presence of outside independent directors on a board is associated with monitoring effectiveness.

2. Separate Roles of CEO and Chairman

The corporate governance literature suggests that the monitoring effectiveness of the board is compromised when the chairman of the board also serves as the CEO (Cornett, McNutt, & Tehranian, 2009). This is because the CEO/chairman duality concentrates power in one person who has the final word in the board decision-making (Dey, 2008). For example, if the same person holds both positions, then he/she is likely to exert major influence on the board by controlling the nomination of directors and the flow of information as well as setting the board’s agenda (e.g., Dechow, Sloan, & Sweeney, 1996; Habib & Azim, 2008; Jensen, 1993). Hence, corporate directors are less willing to challenge the CEO and to exercise independent judgment (Dalton & Kesner, 1987; Vance, 1983; Westphal, 1998). In support of this view, much empirical evidence has found a significant positive association between CEO duality with discretionary accruals and earnings manipulation (Cornett et al., 2009; Dechow et al., 1996; Lo, Wong, & Firth, 2010).

The Malaysian Code on Corporate Governance (MCCG 2012) stipulates clearly that the role of CEO and chairman must be separated. The underlying assumption for this
recommendation is that it is unlikely that the same person can perform both functions simultaneously without conflicts of interest (Ghosh, Marra, & Moon, 2010). By segregating the role of CEO and chairman, the board becomes more independent and effective in exercising its oversight role (Hashim & Devi, 2008a; Jensen, 1993). Therefore, the current study considers firms with a separate the CEO and chairman as an important indicator of governance quality.

3. Board Size
Jensen (1993) argued that large boards are less likely to participate openly and critically in monitoring managerial activities. Hence, large boards are easier for the management to control. Ahmed and Duellman (2007) pointed out that, as more directors are added, the benefit of large boards are diluted due to the “free-rider” problem that may arise when each director on the board relies on other directors to monitor the behavior of the management. Therefore, a smaller board “engenders greater focus, participation, and genuine interaction and debate” (Firstenberg & Malkiel, 1995). Smaller boards are also provide better oversight for financial reporting process because they are less encumbered with bureaucratic issues (Xie et al., 2003). The MCCG recommends that the influence of the size on board effectiveness should be appropriately considered by the whole board, but does not recommend any precise number (Abdul Rahman & Mohamed Ali, 2006; Hashim & Devi, 2008a).

Much empirical evidences supports the view that a smaller board is better than a larger board (Abdul Rahman & Mohamed Ali, 2006; Beasley, 1996; Ching et al., 2006; Ghosh et al., 2010; Vafeas, 2000; Xie et al., 2003; Yermack, 1996). For example, Beasley
(1996) showed an inverse relationship between board size and the likelihood of financial reporting fraud. Hence, the current study includes board size as an important factor in ensuring governance quality.

4. Board Meetings

Board meetings provide a meaningful forum for dialogue between board members and top management pertaining to a wide range of matters spanning from operational levels to strategic plans (García-Sánchez, 2010). The Malaysian Code on Corporate Governance recommends that the board should meet frequently and disclose the number of meetings that occur during the year simultaneously with detailed information about the attendance of each director on the board. Moreover, the code indicates that less than four times a year of meetings is an indicator of board ineffectiveness (Hashim & Devi, 2008a).

Several studies have noted that an important indicator of board effectiveness is the number of board meetings during the year (Carcello, Hermanson, Neal, & Riley, 2002; Lin, Ma, & Su, 2009; Schwartz-Ziv & Weisbach, 2013; Xie et al., 2003). Carcello et al. (2002) posited that in the quest for an improved level of oversight in the financial reporting process, the number of board meetings is a demonstration of a high level of diligence in the discharge of their responsibilities. Xie et al. (2003) suggested that an active board meeting more frequently is able to assign adequate time to discuss critical issues such as earnings manipulation. By contrast, boards with fewer meetings are unlikely to concentrate on these issues and may only rubber-stamp management plans. Therefore, an active board is more effective in monitoring management than an inactive board. Vafeas (1999) found that the number of board meetings increased during periods
of poor performance. He also found that firms’ operating performance displayed significant improvement subsequent to an abnormal board meeting particularly for poorly performing firms before such years. Accordingly, the intensity of board activity in this current study is one indicator of a firm’s governance effectiveness.

5. Audit Committee Independence

One essential characteristic of an audit committee that influences its effectiveness in monitoring management behavior and overseeing the financial reporting process is the independence of its members (Baxter & Cotter, 2009; Klein, 2002; Yatim, 2009). Bedard et al. (2004), and Robinson and Owens-jackson (2009) argued that the audit committee must be independent of the firm’s CEO to discharge its monitoring role and the protect the best interests of shareholders. The argument is that the ability of the audit committee to monitor managements increases when no social or economic ties to the firm exist for audit committee members (Robinson & Owens-Jackson, 2009). In support of this view, Bruynseels and Cardinaels (2014) presented evidence that firms whose audit committee members have social ties to or friendships with the management exhibit more accrual-based earnings management activities. Thus, audit committee independence is seen as a prerequisite to effective monitoring by the audit committee (Yatim, 2009). The Revised Malaysian Code on Corporate Governance 2007 recommends that the audit committee should comprise at least three directors who are independent (Securities Commission, 2007).

Many empirical studies have found that an independent audit committee can enhance the quality of financial reporting and deter management from manipulating earnings or
engaging in fraudulent activities (Abbott, Parker, & Peters, 2004; Archambeault, Dezoort, & Hermanson, 2008; Beasley, Carcello, Hermanson, & Lapides, 2000; Bedard et al., 2004; Davidson, Goodwin-Stewart, & Kent, 2005; Klein, 2002; Vafeas, 2005). Hence, this study posits that firms with a higher percentage of outside directors on audit committees are associated with governance effectiveness.

6. Audit Committee Size

The Malaysian Code of Corporate Governance (MCCG) emphasized that audit committees should comprise not fewer than three members (Mohamad-Nor, Shafie, & Wan-Hussin, 2010). The idea is that, the larger audit committee’s size the more effective that committee would be in monitoring and overseeing the financial reporting process (Ghosh et al., 2010). Larger audit committees have more diverse skills, knowledge and resources available to perform their monitoring roles in an efficient manner (Jamil & Nelson, 2011; Saleh, Iskandar, & Rahmat, 2007).

Moreover, the inclination of a firms to spend resources to create large audit committees denotes an overall commitment to effectively monitoring the financial reporting process (Braswell, Daniels, Landis, & Chang, 2012). If the size of audit committee is small, then an inadequate number of members on the audit committee may result in decreasing the monitoring effectiveness of that committee (Vafeas, 2005). This viewpoint is consistent with resource dependence theory (Pearce & Zahra, 1992). The theory posits that audit committees are a critical source for a high level of linkages with the outside environment. Hence, they can provide the firms with better access to important resources such as experience and knowledge in financial reporting (Jackling & Johl, 2009; Nelson & Devi,
2013). In view of that, many empirical studies have supported the notion that larger audit committee size is better in monitoring financial reporting process (Beasley et al., 2000; Chen & Zhou, 2007; Ghosh et al., 2010; Mohamad-Nor et al., 2010; Yang & Krishnan, 2005; Yatim, 2009). Therefore, audit committees with more directors reflect good corporate governance (Habib & Azim, 2008).

7. Audit Committee Meetings

The number of audit committee meeting signifies the level of scrutiny and diligence exercised by directors on committee members (Ghosh et al., 2010). Previous studies have indicated that an active audit committee that meet more frequently is more likely to exercise greater control over management and financial reporting process than ones meeting less frequently (Ghosh et al., 2010; Owens-Jackson, Robinson, & Shelton, 2009; Sharma, 2004). Thus, an active and diligent audit committee reflects good governance because it can improve the reliability of financial statements (Abdul Rahman & Mohamed Ali, 2006). Menon and Williams (1994) provided evidence of a significant association between the frequency of audit committee meetings, board of director’s independence and firm size, suggesting that agency costs play a significant role in the frequency of audit committee meetings.

Incorporating these arguments, the level of diligence of an audit committee has been suggested as being essential to improving its effectiveness in enhancing the quality of financial reporting (Baxter & Cotter, 2009). The revised Malaysian Code on Corporate Governance (2007) emphasized that at least two meetings between an external auditor
and audit committee members should be held without the presence of executive directors to facilitate an exchange of free and honest views (Securities Commission, 2007).

In supporting the above discussion, numerous empirical studies have shown that the frequency of audit committee meetings is associated with lower levels of financial fraud and accrual-based earnings management and thus, exhibiting better earnings quality (Abbott et al., 2004; Beasley et al., 2000; Owens-Jackson et al., 2009; Xie et al., 2003). Consequently, an active and diligent director on an audit committee is assumed to be associated with monitoring effectiveness in this current study.

8. Audit Committee Financial Experience

The corporate governance literature suggests that exercising a better monitoring function over the financial reporting process requires audit committees with members having in-depth knowledge of accounting standards, auditing and other technical issues (Davidson, Xie, & Xu, 2004; Defond, Hann, & Hu, 2005; DeZoort, 1997; Ghosh et al., 2010; Jamil & Nelson, 2011). This is because inexperienced audit committee members are likely to make incorrect decisions in crucial monitoring domains, resulting in a failure to correctly assess the issues that are presented to them (Dezoort, 1998). Thus, members with accounting backgrounds have the necessary experience to recognize earnings management (Xie et al., 2003). In other words, only members with financial backgrounds are able to curb the opportunistic behavior of management (Ghosh et al., 2010). Moreover, audit committee members with accounting expertise have incentives to
exercise good monitoring to protect their reputational capital and to avoid the risk of litigation (Krishnan & Viswanathan, 2008).

Many regulatory bodies around the world have recommended that audit committee members should be qualified and well experienced in financial matters (Khalifa & Hanefah, 2012). The revised Malaysian Code of Corporate Governance (2007) recommended that all audit committee members should be financially literate and at least one must be a member of accounting bodies such as the Malaysian Institute of Accountants (Securities Commission, 2007).

Many studies have shown that audit committee with financial expertise are more likely to reduce the level of accrual-based earnings management and financial fraud as well as ensure higher earnings quality (Agrawal & Chadha, 2005; Baxter & Cotter, 2009; Dezoort, 1998; Farber, 2005; Keune & Johnstone, 2012; Lo et al., 2010; McDaniel, Martin, & Maines, 2002; Xie et al., 2003). Accordingly, an audit committee with a greater proportion of qualified members is presumed to contribute to the governance effectiveness of a firm in this current study.

9. **Big 4 Auditor**

An auditor is an independent person who is entitled under the law to review and report the weaknesses in the financial records, accounting information system and internal control through high quality audit services to clients (Dandago & Zamro, 2013). The idea that audit quality is not independent of audit firm size can be traced back to the seminal
work of DeAngelo (1981), who suggest that large audit firms with a multiple clients have “more to lose” by failing to supply a high-quality audit. This is because a failure to discover any violation in particular client's financial statement may cause the auditor to lose significant investment in reputation, capital, termination by other clients, and decreased audit fees.

Subsequently, various academics opined that Big 4 auditors supply differential audit quality over that of other auditors (Lawrence, Minutti-Meza, & Zhang, 2011). Big 4 firms have a significant market share (Thoopenutm & Jaikengkit, 2009), work by means of network of semi-autonomous practice offices and have decentralized offices (Francis & Yu, 2009). These attributes may alleviate the information asymmetry and enable Big 4 to cultivate favorable knowledge about existing and potential clients (Francis & Yu, 2009). In addition, Big 4 firms devote more resources to training programs. As a result, they have better trained auditors (Eshleman & Guo, 2014). Thus, it comes as no surprise that Big 4 auditors have more in-depth experience, and knowledge in reviewing public companies, which would in turn improve their ability to discover and record material misstatements in the financial reports (Francis & Yu, 2009; Krishnan, 2003).

Big N firms are also more risk averse (Lai, 2013), and sensitive to the cost of client misstatements (Francis & Wang, 2008). This is because they are more adversely affected than non-Big firms by unfavorable events that lead to loss in reputation (Krishnan, 2003). For example, the Big 4 firms are likely to be prosecuted if they fail to discover any misstatements in financial reports (Becker, Defond, Jiambalvo, & Subramanyam, 1998; Khurana & Raman, 2004). Hence, the Big 4 auditors are most assuredly independent
(Becker et al., 1998). Particularly, they are inclined, capable and well-positioned to challenge the wishes of management in order to shield their reputation (DeFond & Jiambalvo, 1993). On the other hand, non-Big 4 auditors are more susceptible to agree with managements in order to avoid dismissal since they have less to lose (Francis & Wang, 2008; Lai, 2013).

Consistent with these arguments, the empirical evidence from prior studies has shown that Big 4 audit firms are more effective in reducing accrual based earnings management and financial fraud (Becker et al., 1998; Defond & Jiambalvo, 1991; Johl, Jubb, & Houghton, 2007; Krishnan, 2003). Therefore, the present study considers that firms whose financial statements have been audited by Big 4 auditors are associated with greater governance effectiveness.

10. Internal Audit Sourcing Arrangements

During earlier periods, the internal audit function had a reputation for focusing mainly on a firm's financial reporting and internal controls (Jeffrey, 2008). This has evolved function to include, IT assurance services, risk assessment, operational auditing and even more (Speklé, Elten, & Kruis, 2007). Thus, internal auditing is an essential component of corporate governance (Glover, Prawitt, & Wood, 2008). The Listing Requirements of Bursa Malaysia and the revised Malaysian Code on Corporate Governance (2007) require all listed firms to establish an internal audit function and to disclose information concerning this function in annual reports (Securities Commission, 2011; Wan-Hussin & Bamahros, 2013).
Typically, three possible sourcing arrangements of internal audit function exist. These arrangements include: (1) in-house internal audit function, wherein a firm creates its own internal audit department, (2) outsourced internal audit function, wherein an independent service provider performs all internal audit services, and (3) a co-sourced internal audit function, where collaboration exists between an independent internal audit provider and in-house internal auditors (Desai, Gerard, & Tripathy, 2011).

According to Chadwick (2000), in-house internal audit function has four advantages over other sourcing arrangements. First, internal auditors are likely to have in-depth knowledge and understanding of the firm’s practices and procedures. This is because internal auditors gain valuable insights through continuous exposure to the firms’ operations and interactions with the clients. Second, in-house internal audit functions provide firms with the necessary resources to deal with abnormal problems instantly. By contrast, outsourced internal audit functions often lack adequate familiarity with the firms, which will, in turn, slow their responses to crises situations.

Third, internal auditors are well equipped to detect various types of unethical behaviors such as embezzlement, kickbacks, insider trading and other matters by virtue of their close proximity to day-to-day operations. On the other hand, outsourced auditors tend to focus on detecting fraudulent financial reporting. Fourth, in-house internal auditors assist in maintaining independence and objectivity. Particularly, the independence and objectivity of public accounting firms might be impaired due to a conflict of interest when they provide both internal audit services and financial statement certifications.
(Abbott, Parker, Peters, & Rama, 2007; Chadwick, 2000). Additionally, Salameh, Al-Weshah, Al-Nsour, and Al-Hiyari, (2011) assert that in-house internal audit functions may protect firms from losing either confidential information or proprietary information.

In supporting the above arguments, previous studies have shown that the presence of an in-house internal function increases the likelihood of discovering and self-reporting fraud as compared to entirely outsourced internal audit function (Coram, Ferguson, & Moroney, 2008; Salameh et al., 2011). On the basis of these arguments, the current study considers that keeping an in-house internal audit function within a firm is an indicator of governance effectiveness.

11. Institutional Ownership

Typically, institutional shareholders are sophisticated shareholders who have greater resources, expertise, and ability to monitor the activities of management than others (Chung, Firth, & Kim, 2002). They have both the power and the incentives to discipline and encourage more accurate financial reporting (Velury & Jenkins, 2006). For example, institutional shareholders influence management’s behaviors directly through their ownership and indirectly via their trading activities (Gillan & Starks, 2003).

Furthermore, institutional shareholders are likely to be reluctant to invest in unhealthy firms or those with poor corporate governance (Tanaka, 2014; Wahab, How, & Verhoeven, 2008). Abdul Wahab et al. (2008) presented evidence that on average, when the standard deviation of corporate governance increases by one, the institutional ownership raised by 9%. Thus, it comes as no surprise that institutional shareholders can
serve as a substitute for monitoring by the board (Ahmed & Duellman, 2007). They are often seen as external control mechanisms that can alleviate the agency problem between owners and insider managers (Barton, 2005; Hartzell & Starks, 2003).

In supporting this argument, empirical evidence has shown that institutional ownership are associated with less level of earnings management activities (Chung et al., 2002; Cornett, Marcus, & Tehranian, 2008; Hashim & Devi, 2008a; Koh, 2003, 2007; Mitra & Cready, 2005; Sharma, 2004). For example, Hashim and Devi (2008) found evidence of a significant positive association between institutional shareholdings and earnings quality in Malaysia.

In Malaysia, institutional shareholders have become an important component of equity markets (Ismail & Rahman, 2011). The amount of institutional ownership is approximately 13% of the total market capitalisation of the Bursa Malaysia (Abdul Wahab, How, & Verhoeven, 2008). As a result, this study includes institutional shareholders as an important factor influencing the overall governance quality of a firm.

12. Managerial Ownership
Warfield et al. (1995) indicated that a lower managerial equity holding motivates managers to pursue non-value maximizing behavior. This is because the alignment of interests between the managers and owners is likely to be lower among firms that have a small level of managerial ownership. As a result, owners have incentives to enter into contracts with managers in order to discipline them from pursuing their self-interests in the opportunistic sense (Warfield et al., 1995). Nevertheless, these contracts cannot
mitigate all opportunisms as managers may use the flexibilities afforded by accounting standards to reduce the transparency of the financial statements in line with their own private incentives (Warfield et al., 1995).

In contrast, an increase in the percentage of managerial ownership provides an incentive for managers to act for the interests of shareholders (Paek, Xiao, Lee, & Song, 2013). This is because higher insider ownership helps to align the interests of managers with those of shareholder and consequently alleviates the agency problems between the two parties (Fama & Jensen, 1983; Jensen & Meckling, 1976; Morck, Shleifer, & Vishny, 1988). Thus, a high proportion of inside ownership may encourage managers to act in the best interest of outsiders, resulting in a reduction of agency costs (Chen & Yu, 2012; Mustapha & Che-Ahmad, 2011). This is particularly true because any opportunistic behavior by managers to overstate current earnings will be offset by an eventual decrease in company value when these overstatements reverse in subsequent years (Lafond & Roychowdhury, 2008).

Although the empirical results from previous studies are mixed, the popular view is that a higher percentage of managerial ownership is associated with strong corporate governance (Ali, Salleh, & Hassan, 2008; Mustapha & Che-Ahmad, 2011; Saleh, Iskandar, & Rahmat, 2005; Warfield et al., 1995). For example, Saleh et al. (2005) and Ali et al. (2008) presented evidence that increased ownership by managers reduces the level of earnings management as proxied by discretionary accruals. Warfield et al. (1995) showed evidence that managerial ownership is positively related with the informativeness
of earnings and negatively related to the magnitude of discretionary accruals. Mustapha and Che-Ahmad (2011) found a negative relationship between managerial ownership and total monitoring costs. Therefore, the present study includes managerial ownership in measuring governance effectiveness.

13. Non-Executive Directors’ Ownership

Typically, the non-independent non-executive directors, who are also known as an affiliated or “grey” directors, are board members who may have a current or prior connection with the firm or its top management including family, suppliers and consumers (Cohen et al., 2004; Mak & Li, 2001; Wan-Hussin, 2009). Hence, they often have potential conflicts of interests (Srinivasan, 2005).

In view of the expectations regarding the role of non-executive directors in performing their fiduciary duties, it has been argued that the monitoring incentives of those directors are influenced by the level of their equity stakes in the firms (Morck et al., 1988). That is, with increased ownership, a director would be less likely to pursue detrimental activities at the expense of shareholders as they bear some part of the consequences of their actions (Ozkan, 2011). Thus, given that the monitoring performance of non-executive directors requires time and effort, ownership of directors would provide them with additional incentives to monitor managements (Jensen, 1993; Morck et al., 1988). This is consistent with the notion that stock ownership by directors may serve as a mechanism to increase the alignment of their interests with those of owners and therefore reduce agency costs of firms (Goh & Gupta, 2015; Ozkan, 2011).
In supporting these arguments, Beasley (1996) showed evidence that the likelihood of financial statement fraud decreases in firms with a higher proportion of directors' ownership. Ahmed and Duellman (2007) found a positive relationship between directors' ownership and accounting conservatism. Abdullah (2006) found evidence of a negative relationship between directors' ownership and the likelihood of financial distress. Ozkan (2011) found a negative association between directors' ownership and CEO compensation level. To conclude, increased ownership in the firms by non-executive directors can provide them with further incentives to monitor the behavior of managements. Thus, the present study considers that ownership held by non-executive directors is an important indicator of the quality of firm's corporate governance.

3.1.2.2 Summary Measure of Corporate Governance Variables

Building on prior corporate governance literature (AbuGhazaleh et al., 2012; Ammann et al., 2011; Habib & Azim, 2008; Kanagaretnam et al., 2007; Larcker et al., 2007; Song et al., 2010), this present study uses principal component analysis (PCA) to condense corporate governance variables into a small number of factors that capture different dimensions of a firm's governance effectiveness. The use of PCA can mitigate the measurement error associated with arbitrarily constructed indices or individually corporate governance variables (Larcker et al., 2007). The variables chosen include: (1) board independence, (2) separate roles of CEO and chairman, (3) frequency of board meetings, (4) audit committee independence, (5) audit committee size, (6) frequency of audit committee meetings, (7) audit committee financial experience, (8) the presence of Big 4 audit firms, (9) sourcing arrangements of the internal audit function, (10)
managerial ownership, (11) non-executive directors' ownership, and (12) institutional ownership.

Effective corporate governance can mitigate information asymmetries and thus the moral hazard problem when managers have agency-based motives to do so. Consequently, shareholders may view that reduced latitude for creative accounting practices exists in firms with effective corporate governance mechanisms. This study attempts to provide evidence on the impact of corporate governance on the value relevance of goodwill impairments.

### 3.2 Determinants of the Amount of Goodwill Impairment Losses

The association between goodwill impairments with financial factors and managerial agency-based motives has been empirically examined. Earlier research examined the determinants of goodwill impairments during the transition period in which special accounting practices permitted to account for change in accounting policy (Beatty & Weber, 2006; Jordan & Clark, 2004; Lapointe-Antunes, Cormier, & Magnan, 2008; Zang, 2008).

For example, Beatty and Weber (2006) investigated SFAS 142 adoption choices, focusing on the trade-off between reporting certain present goodwill impairment losses below the line in 2002 and uncertain future impairment losses included in income from continuing operations in later periods. After controlling for financial factors, they found that managers’ accounting policy choices are related with both firms’ contracting (e.g.,
managerial compensation and debt covenants) and market reporting incentives (e.g., exchange delisting incentives) concerning the trade-off between the timing and presentation of expense recognition on profit and loss statement in the United States.

Although the findings of (Beatty & Weber, 2006; Jordan & Clark, 2004; Lapointe-Antunes et al., 2008; Zang, 2008) are informative, the external validity and generalizability of these studies to other countries can be questioned because there is no special accounting treatment to account for goodwill under IFRS regime.

Another stream of research examined how financial factors and managerial agency-based motives play role in managers' accounting policy choices relating to goodwill impairments in post adoption of IFRS. For example, AbuGhazaleh et al. (2011) found evidence that managerial incentives such as income smoothing and both bath behavior affect the amount of goodwill impairments. However, AbuGhazaleh et al. (2011) study suffered from sample selection bias because they restricted the sample to top 500 nonfinancial firms in the United Kingdom.

In Malaysia, prior research has not provided consistent results on the determinants of goodwill impairments. Particularly, Abdul Majid (2015) provided evidence that goodwill impairments are associated with earnings smoothing, and big bath behavior. On the other hand, Omar and Mohd-Saleh (2011) found that earnings smoothing and big bath behavior are not significantly associated with goodwill impairment decisions. One explanation for
the inconsistent research results may be different methodological differences, variable measurements, and sample selection procedures

This study differs from past research such as Abdul Majid (2015) in several ways. First, it focuses on the most recent data available at the time the data collection process was carried out. In 2009, IFRS 3 was revised and amended. The main change was related to application of acquisition method as the main technique to account for business combinations (Eloff & Villiers, 2015). Similarly, the empirical analyses in this study are not compromised by the period of global financial crisis from 2008 to 2009. The financial crisis is likely to affect the profitability of Malaysian firms and therefore the managers’ accounting policy choices regarding goodwill impairment decisions (Mohd-Saleh & Omar, 2014; Ramanna & Watts, 2012).

Second, from a methodological point of view, Abdul Majid’s (2015) study suffers from correlated omitted variable problem that arises when the researcher misses out some important variables such as the number of business segments, and CEOs tenure. Importantly, this current study uses panel data technique to examine the factors influencing the amount of goodwill impairments. The use of panel data allows this study to pick up the effect unobservables that would otherwise mess up the estimation of regression parameters (Startz, 2009).

Finally, in term sample selection process, the current study differs from Abdul Majid (2015) in that it excludes all financial firms because of their unique financial structures
and different statutory requirements, which may unduly influence the results (Hashim & Devi, 2008b; Yang & Krishnan, 2005). Consequently, further evidence is needed on whether there is manipulation consistent with ex-post managerial opportunism. This study devotes the remainder of this section to review the literature concerning the financial factors and the managerial agency-based motives.

3.2.1 Financial Factors

Wilson (1996) pointed out that the credibility of the findings provided by discretionary assets impairments studies relied on a research design that controls for financial factors (AbuGhazaleh et al., 2011). These factors demonstrate the actual impairment of goodwill prior to discussing the results of managerial agency-based motives such as income smoothing or big bath earnings management (AbuGhazaleh et al., 2011; Beatty & Weber, 2006; J. Francis et al., 1996; Lapointe-Antunes et al., 2008; Riedl, 2004; Zang, 2008). Typically, an ideal financial factor of cash generating units (CGUs) that contain goodwill would encompass management insights regarding the economic performance of those CGUs (AbuGhazaleh et al., 2011; Riedl, 2004).

However, neither managerial insights nor economic performance of CGUs are available or observable (AbuGhazaleh et al., 2011; Riedl, 2004). For example, in Malaysia, studies have found insufficient disclosure regarding CGUs (Carlin et al., 2009a, 2009b). Thus, consistent with previous studies, alternative proxies are employed in this current study to capture some portion of managerial expectations (Beatty & Weber, 2006; J. Francis et al., 1996; Lapointe-Antunes et al., 2008; Riedl, 2004; Zang, 2008). In this study, five
financial factors are used as proxies to capture the economic impairment of goodwill as discussed in the following sections.

3.2.1.1 Book-to-Market Value

Book-to-market value is an essential figure in capturing a firm’s growth opportunities, and, hence, it may help investors to evaluate a company’s performance. According to KPMG (2014), referring on market capitalization could eliminate much of the ambiguity and subjectivity embedded in impairment reviewing. Furthermore, one external indicator that may indicate that a goodwill asset has been impaired is that the carrying amount of the net assets of a firm is more than the market capitalization (MFRS 136, para 12d). Additionally, AbuGhazaleh et al. (2011) pointed out that book-to-market value treats the entire firm as one cash-generating unit, and firms are expected to recognize goodwill impairment when book-to-market value before impairment is high.

Empirical studies have shown that firms with deteriorating growth opportunities are more likely to recognize goodwill impairment losses (AbuGhazaleh et al., 2011; Beatty & Weber, 2006; Chalmers et al., 2011; Giner & Pardo, 2014; Jarva, 2014). Thus, firms with high book-to-market ratios are more prone to recognize greater amounts of impairment charges.

3.2.1.2 Stock Performance

Stock performance is a measure of the returns on stock over a particular period of time. It has been argued that market-based measures such as stock returns may reflect more
comprehensive measures of the economic attributes of a firm (Riedl, 2004). Furthermore, the belief is that the likelihood of recording goodwill impairments increases for firms that have experienced poorer stock price performance (Chao & Horng, 2013; Giner & Pardo, 2014; Hayn & Hughes, 2006; Jarva, 2014; Zang, 2008). For example, Jarva (2014) found that firms with such impairment suffer from poor stock price performance. Accordingly, it might be that the worse the stock performance, the larger amount of goodwill impairments would be recognized.

3.2.1.3 Change in Sales

According to Riedl (2004), change in sales is one fundamental accrual-related performance measure, and the change in value might be either positive or negative reflecting either an increase or decrease in the dollar amount of sales. AbuGhazaleh et al. (2011) pointed out that change in sales exemplifies a gross measure of a firm’s performance, which reflects more recoverability in the economic value of goodwill asset. Empirically, Riedl (2004) reported that the change in sales is a significant factor in explaining asset impairments. Therefore, the prediction is that firms with poor performance as measured by change in sales revenue will recognize greater amounts of goodwill impairment losses.

3.2.1.4 Return on Assets (ROA)

Similar to change in sales, this variable captures the firm profitability (AbuGhazaleh et al., 2011). The expectation is that the weaker the company’s prior performance, the larger the amount of recorded goodwill impairments (AbuGhazaleh et al., 2011; Francis
et al., 1996; Zang, 2008). Hayn and Hughes (2006) reinforced this argument, finding that segment-level ROA is significantly related with goodwill impairments. Similarly, AbuGhazaleh et al. (2011), Mohd-Saleh and Omar (2014), and Omar et al. (2015), and Zang (2008) have shown evidence that firms with poor ROA disclose more goodwill impairments. Thus, it can be concluded that goodwill impairment decisions are related with firms’ performance as measured by ROA.

3.2.1.5 Change in Operating Cash Flows (OCF)

Change in OCF reflects cash-related attributes (AbuGhazaleh et al., 2011; Riedl, 2004). Similar to accrual related measures, this proxy endeavours to capture a net rather than a gross measure of underlying economic performance of the firm (Riedl, 2004). According to AbuGhazaleh et al. (2011), estimating the value in use (VIU) is largely dependent on a manager’s projections of the future cash flow prospects of a firm. Thus, firms with lower cash flows than expected are prone to recognize large amounts of goodwill impairment (AbuGhazaleh et al., 2011). In addition, Greco, Ferramosca, and Allegrini (2015) documented that firms with negative changes in operating cash flow disclosed greater magnitudes of asset impairments. Likewise, AbuGhazaleh et al. (2011) found that change in OCF was a significant factor in explaining goodwill impairment loss. Hence, it can be argued that the more deteriorated the operating cash flow is, the larger amount of goodwill impairment losses will be recognized.
3.2.2 Managerial Agency-Based Motives

3.2.2.1 Managerial Discretion and Debt Ratio

A debt covenant is a written contract between a borrower and a lender, which includes restrictions on actions or activities by the management or calls for permission by the lender to take certain actions (Godfrey, Hodgson, Tarca, Hamilton, & Holmes, 2010). The main objective of debt covenants is to limit managers from pursuing activities that are contrary to the interests of lenders (Ronen & Yaari, 2008). Therefore, covenants can reduce the agency costs faced by the lender arising from the transfer of wealth from debt holders to shareholders when firms are near financial distress (Nikolaev, 2010).

Violation of the debt contracts provides lenders with the choice of accelerating the amount due payments, limiting the availability of credit, increasing the interest costs, restricting managers’ ability to take new investments, paying out dividends, borrowing further debt or other actions according to the terms of the contracts (Abor, 2008; Godfrey et al., 2010; Roberts & Sufi, 2009). Therefore, managers have incentives to keep debt contracts far from the possibility of being breached (Zang, 2008).

According to Watts and Zimmerman (1986), debt contracts affect managers’ accounting choices and firms that are approaching a violation of a debt contract tend to select the accounting methods and estimates aimed at increasing reported income. They do so to improve their bargaining positions in the case of debt renegotiations or delaying debt defaults. Hence, they can prevent severe implications for the debt-equity ratio and excess borrowing costs (Loh & Tan, 2002). Taken together, managers of highly leveraged firms
have incentives to manage earnings upwards to avoid market penalties arising from violating debt contracts (DeFond & Jiambalvo, 1994; Dichev & Skinner, 2002).

In view of the expectations regarding the role of a debt contract in the accounting discretion relating to goodwill impairments, many empirical studies have found a significant negative association between reported goodwill impairments and debt covenant violation concerns (Beatty & Weber, 2006; Lapointe-Antunes et al., 2008; Mohd-Saleh & Omar, 2014; Ramanna & Watts, 2012; Zang, 2008). For example, Mohd-Saleh and Omar (2014), and Omar et al. (2015) found a negative association between leverage ratio and goodwill impairments reported by Malaysian firms. Lapointe-Antunes et al. (2008) found that Canadian firms recorded lower magnitudes of impairment losses to avoid deviation from the industry median leverage ratio. In a related study, Zang (2008) found that shareholders responded more negatively to the announcement of impairment losses when reported by highly leveraged firms.

However, some studies have not provided evidence to support the argument that firms' debt contracting affects managers' accounting choices in goodwill impairments (Abdul Majid, 2015; AbuGhazaleh et al., 2011; Giner & Pardo, 2014; Hamberg et al., 2011; Peetathawatchai & Acaranupong, 2012). One explanation for the inconsistency in the results regarding the impact of leverage on accounting choices is inability of debt ratios to capture the default risk of debt (Dichev & Skinner, 2002; Fields et al., 2001). To overcome this problem, some studies have used an alternative proxy to that of debt ratios. For example, Riedl (2004) used an indicator variable that was equal to one when the debt
was private and zero otherwise. Beatty and Weber (2006) distinguished between companies that incorporated intangibles into debt contracts from those who included only tangible net worth covenants into debt contracts. However, it is difficult to get information from companies in Malaysia on private or public debt and tangible covenant or net worth covenants. Therefore, debt ratio is used in the study as a proxy for a firm’s closeness to debt covenants.

Overall, it can be concluded that the evidence on the impact of debt ratio on reporting goodwill impairment is inconsistent. Thus, examining whether Malaysian firms attempt to avoid covenants violation by exploiting the discretionary nature of the goodwill impairment review between 2010 and 2014 is important. Table 3.2 below summarizes the literature on the influence of debt covenants on the managers’ accounting choices with respect to goodwill impairments.

Table 3.2
Summary of the literature about debt covenants and goodwill impairments

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Period</th>
<th>Finding</th>
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<tbody>
<tr>
<td>Hamberg et al. (2011)</td>
<td>Sweden</td>
<td>2004</td>
<td>Insig</td>
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<tr>
<td>Lapointe-Antunes et al. (2008)</td>
<td>Canada</td>
<td>2004</td>
<td>Sig</td>
</tr>
<tr>
<td>Mohd-Saleh and Omar (2014)</td>
<td>Malaysia</td>
<td>2006-2008</td>
<td>Sig</td>
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<tr>
<td>Omar et al. (2015)</td>
<td>Malaysia</td>
<td>2006-2008</td>
<td>Sig</td>
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</table>

Note. (Sig) denotes a significant relationship whereas (Insig) denotes an insignificant relationship.
3.2.2.2 Managerial Discretion and “Big Bath” Behavior

Early research into asset impairments shows that one fundamental motivation for managers to report asset impairments is big bath behaviors (Elliott & Shaw, 1988; Watts & Zimmerman, 1986; Zucca & Campbell, 1992). The notion is that, when conditions are not good, making the circumstances a little bit worse by taking a large hit to earnings will not harm either a manager’s reputation or a firm’s prospects (Walsh, Craig, & Clarke, 1991). This behavior is usually done when managers “save up” discretionary accruals and subsequently report income decreasing accruals when their performance is low (Zucca & Campbell, 1992). By undertaking such behavior, they can build reserves for future costs and losses and report favorable performance-linked compensation in the subsequent years (Elliott & Shaw, 1988; Loh & Tan, 2002; Moore, 1973; Zucca & Campbell, 1992). Alternatively, managers may report large impairments to signal to the markets that they have been dealing with the past problems boldly and “bad times” are gone and better times will come (Strong & Meyer, 1987; Zucca & Campbell, 1992).

Several empirical studies have shown that managers do report impairments when the performance of firms is too unfavorable (Abdul Majid, 2015; Abuaddous et al., 2014; AbuGhazaleh et al., 2011; Chen, Krishnan, & Sami, 2015; Giner & Pardo, 2014; Greco et al., 2015; Jordan, Clark, & Vann, 2007; Jordan & Clark, 2004; Laskaridou & Vazakidis, 2013; Rees, Gill, & Gore, 1996; Sevin & Schroeder, 2005). For example, Jordan and Clark (2004) compared firm performance in the initial year of the adoption of the new approach, when goodwill impairments were treated as a cumulative effect changing an accounting principle, with the year prior to adoption of the new approach. Their findings
reveal that impairment firms experienced poorer earnings in the year of adoption of the new approach than did non-impairment firms, consistent with big bath earnings management behavior. AbuGhazaleh et al. (2011) provided evidence based on data from the United Kingdom that managers employed their reporting discretion to overstate the amount of goodwill impairments by undertaking big bath earnings management behavior.

Importantly, however, the empirical evidence in Malaysia is inconsistent. While Abuaddous et al. (2014) found evidence that goodwill impairment is associated with big bath behavior, Omar et al. (2015) found the association to be insignificant. This inconsistent evidence motivates the examination of whether big bath earnings management play a significant role in the choice of managers when reporting goodwill impairments.

To conclude, most empirical evidence from prior studies supports the agency theory in that big bath behavior is an important incentive that affects goodwill impairment decisions. Table 3.3 below summarizes the literature with respect to big bath earnings management and goodwill impairments.
Table 3.3

Summary of the literature about big bath behavior and goodwill impairments

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Period</th>
<th>Finding</th>
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<tbody>
<tr>
<td>Abdul Majid (2015)</td>
<td>Malaysia</td>
<td>2006-2010</td>
<td>Sig</td>
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<tr>
<td>Abuaddous et al. (2014)</td>
<td>Malaysia</td>
<td>2011-2012</td>
<td>Sig</td>
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<tr>
<td>AbuGhazaleh et al. (2011)</td>
<td>U.K.</td>
<td>2005-2006</td>
<td>Sig</td>
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<tr>
<td>Greco et al. (2015)</td>
<td>Italy</td>
<td>2006-2010</td>
<td>Sig</td>
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<tr>
<td>Jordan et al. (2007)</td>
<td>U.S.</td>
<td>2001-2004</td>
<td>Sig</td>
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<tr>
<td>Laskaridou and Vazakidis (2013)</td>
<td>Greece</td>
<td>2005-2006</td>
<td>Sig</td>
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<tr>
<td>Rees et al. (1996)</td>
<td>U.S.</td>
<td>1984-1986</td>
<td>Sig</td>
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Note. (Sig) denotes a significant relationship whereas (Insig) denotes an insignificant relationship.

3.2.2.3 Managerial Discretion and Income Smoothing

Income smoothing is considered to be an important technique used to manage earnings (Habib, Hossain, & Jiang, 2011). Basically, managers aspire to stabilize the reported earnings and to provide outsiders with more predictable accounting earnings numbers (Zucca & Campbell, 1992). By doing so, they can minimize abnormal variations in earnings by using accounting methods and estimates to enhance earnings persistence and yield a stable earnings stream (DeFond & Park, 1997). According to Fudenberg and Tirole (1995), income smoothing is defined as “the process of manipulating the time profile of earnings or earnings reports to make the reported income stream less variable, while not increasing reported earnings over the long run” (p. 75).

Several factors encourage managers to rationalize such behavior. First, by delivering constant and expectable earnings growth rate via smoothing earnings (Zucca &
Campbell, 1992), the forecast accuracy of financial analysts may improve because they do not need to make exhaustive adjustments to earnings (Beidleman, 1973). Second, investors may look at firms with a stable earnings stream as being able to support higher dividends than firms with larger variations in earnings (Zucca & Campbell, 1992). Third, higher earnings fluctuation may dampen investor’s confidence in a firm’s permanent earnings power (Tucker & Zarowin, 2006). Finally, higher earnings variations may exacerbate potential losses borne by uninformed investors (Habib et al., 2011). In sum, the market may perceive firms reporting smoother earnings to be associated with lower risks and better stock price performance (Zucca & Campbell, 1992).

Similar to big bath reporting behavior, income smoothing has been linked with maximizing a manager’s compensation. When earnings are above normal expectations and bonuses have already reached the bonus cap or a target budget has been achieved, managers tend to use income-decreasing accruals (Holthausen, Larcker, & Sloan, 1995; Murphy, 2001). Alternatively, income smoothing is used to release the private information of managers (Kirschenheiter & Melumad, 2002; Tucker & Zarowin, 2006).

Income smoothing can be accomplished by various methods; one method is goodwill impairments. In this sense, if pre-impairment earnings are higher than expected, a manager is more likely to report impairments to smooth earnings in order to create hidden reserves for future period (AbuGhazaleh et al., 2011; Chenet al., 2015; Giner & Pardo, 2014; Omar & Mohd-Saleh, 2011; Peetathawatchai & Acaranupong, 2012). In line with the argument, Giner and Pardo (2014) showed that, when pre-write-off earnings are
higher than expected, managers overstate impairment charges to smooth earnings. This result is consistent with the findings of AbuGhazaleh et al. (2011) who showed a significant positive relationship between goodwill impairment and income smoothing behavior.

However, some empirical studies do not support the income-smoothing hypothesis. For example, Greco et al. (2015) failed to find evidence supporting the argument that managers have incentives to undertake assets impairments when firm performance is unexpectedly high. Therefore, it is an open question whether goodwill impairments reported by Malaysian firms between 2010 and 2014 are significantly associated with income smoothing.

Summing up, previous studies predicted that corporate managers have incentives to utilize the provision of MFRS. No 136 to smooth earnings via goodwill impairment. Hence, examining the association between earnings smoothing and impairment charges is important. Table 3.4 below summarizes the results of empirical studies from prior literature concerning the importance of income smoothing in the accounting choices of managements relating to goodwill impairments.
Table 3.4
Summary of the literature about income smoothing and goodwill impairments

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Period</th>
<th>Finding</th>
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<tr>
<td>Abdul Majid (2015)</td>
<td>Malaysia</td>
<td>2006-2010</td>
<td>Sig</td>
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<tr>
<td>AbuGhazaleh et al. (2011)</td>
<td>U.K.</td>
<td>2005-2006</td>
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<tr>
<td>Greco et al. (2015)</td>
<td>Italy</td>
<td>2006-2010</td>
<td>Insig</td>
</tr>
<tr>
<td>Omar and Mohd-Saleh (2011)</td>
<td>Malaysia</td>
<td>2006-2008</td>
<td>Sig</td>
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</tbody>
</table>

Note. (Sig) denotes a significant relationship whereas (Insig) denotes an insignificant relationship.

3.2.2.4 Managerial Discretion and CEOs Change

According to Ronen and Yaari (2008), CEO change is an important event in organizations. This is because it may be often accompanied by divestiture of unprofitable assets (Weisbach, 1995), altering the firm’s strategic direction (Riedl, 2004), re-examining the value of firm’s assets (Elliott & Shaw, 1988), and making significant accounting changes (Lasalle, Jones, & Jain, 1993). Thus, it is logical to assume that an incoming CEO is inclined to show outcomes, and the earlier the better (Ronen & Yaari, 2008). He is responsible and accountable for establishing the firm’s strategy focus, structure, and performance (Ishak, Ismail, & Abdullah, 2013).

Consistent with these arguments, prior accounting literature indicates that incoming CEOs tend to undertake profit minimizing activities through reporting large asset impairments in the year of the CEO change (Moore, 1973; Strong & Meyer, 1987; Wells, 2002). In doing so, an incoming CEO can blame the departing CEO for the bad acquisition he made, signal to markets that the critical time has passed and that the good times will be realized, and increased earnings will be present in subsequent years (Riedl,
2004). Thus, this course of action maximizes the amounts of future bonus compensations (Greco et al., 2015).

Alternatively, an incoming CEO may exercise extensive scrutiny over a firm’s assets, strategies, resulting in impairments charges that reflect the economic reality of the firm (Riedl, 2004). For example, he may discover past problems that the departing CEO ignored (Elliott & Shaw, 1988). Furthermore, it could be that depressed firms employ new CEOs to rescue the firms and improve their performance. Hence, an incoming CEO may evaluate the value of goodwill more objectively than an old CEO because he has a fresh and innovative perspective (Masters-Stout et al., 2008).

A sizable body of prior research provides empirical support for the notion that goodwill impairments are associated with a CEO change (AbuGhazaleh et al., 2011; Greco et al., 2015; Lapointe-Antunes et al., 2008; Zang, 2008). For example, Lapointe-Antunes et al. (2008) presented evidence that firms are inclined to report greater amounts of goodwill impairment when they have experienced a change in CEO. However, the empirical evidence in Malaysia has shown mixed and inconsistent results. For example, Omar et al. (2015) found that CEO change is associated with goodwill impairment decisions. By contrast, Abdul Majid (2015), Abuaddous et al. (2014), and Mohd-Saleh and Omar (2014) found no evidence of a positive association between CEO change and goodwill impairments. Therefore, this current study re-examines the issue of managers’ incentives to report impairment charges in the initial years of CEO change using a panel dataset for the period 2010 to 2014.
Overall, it can be concluded that most previous studies have found that new CEOs undertake big bath earnings management behavior in the first year of CEO change by recognising goodwill impairments. Table 3.5 below summarizes the literature on the association between CEO change and goodwill impairments.

Table 3.5
*Summary of the literature about CEOs change and goodwill impairments*

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Period</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Abuaddous et al. (2014)</td>
<td>Malaysia</td>
<td>2011-2012</td>
<td>Insig</td>
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<tr>
<td>AbuGhazaleh et al. (2011)</td>
<td>U.K.</td>
<td>2005-2006</td>
<td>Sig</td>
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<tr>
<td>Chao and Horng (2013)</td>
<td>Taiwan</td>
<td>2005-2007</td>
<td>Insig</td>
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<td>Greco et al. (2015)</td>
<td>Italy</td>
<td>2006-2010</td>
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<td>Lapointe-Antunes et al. (2008)</td>
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<td>Omar et al. (2015)</td>
<td>Malaysia</td>
<td>2006-2008</td>
<td>Sig</td>
</tr>
</tbody>
</table>

Note. (Sig) denotes a significant relationship whereas (Insig) denotes an insignificant relationship.

3.2.2.5 Managerial Discretion and CEOs Tenure

Beatty and Weber (2006) asserted that CEOs who initiated acquisition decisions were more likely to be reluctant to recognize goodwill impairments to maintain their reputation. That is because doing so suggested that the price of the target business is too high or the expected synergies between acquirer and acquire company have failed (Lapointe-Antunes et al., 2008). Therefore, goodwill impairment is similar to admitting failure, which may lead to the distortion of the image of the managers in the eyes of capital markets (Zang, 2008). Alternatively, the dynamic change in the business environment and market conditions as well as the other macro-economic factors that are outside managerial control might cause good acquisitions to appear bad. Accordingly,
CEOs who take the acquisition decisions may have no reason to be reluctant to recognize goodwill impairments (Beatty & Weber, 2006).

Following Beatty and Weber (2006), this study uses CEO tenure as a proxy for CEO concern of reputation. The assumption is that a CEO with a long tenure is more likely to be responsible for directing the acquisitions decisions that generated the current impairment charges and hence less likely to expense goodwill (Ramanna & Watts, 2009).

Consistent with these arguments, CEO tenure have been found to be negatively associated with goodwill impairments (Beatty & Weber, 2006; Hamberg et al., 2011; Ramanna & Watts, 2012). For example, Beatty and Weber (2006) found a negative association between a manager’s tenure and SFAS 142 impairment charges. Ramanna and Watts (2012) provided evidence that goodwill zero impairments for a firm increase incrementally with the length of CEO tenure. They concluded that senior CEOs are more likely to avoid recognising impairment due to costs to reputations. Furthermore, Masters-Stout et al. (2008) reported that new CEOs report an excessive amount of goodwill impairment as compared to senior CEOs. In addition, Hamberg et al. (2011) documented that, when a CEO’s tenure is more than five years, he tends not to disclose goodwill impairments.

However, some studies have found no significant influence of CEO tenure on goodwill impairment decisions. Mohd-Saleh and Omar (2014) found an insignificant association between CEO tenure and goodwill impairments. In a related study, Iatridis and
Senfilechner (2014) showed that CEOs early in their tenure do not use the discretionary goodwill impairment to hit earnings via a big bath “earnings management” strategy. Interestingly, Omar et al. (2015) found that longer-tenured CEOs are more prone to report goodwill impairments.

Based on previous studies as discussed, it can be concluded that the evidence on the association between CEO tenure and goodwill impairment is inconsistent. Table 3.6 below summarizes the literature on the relationship between CEO tenure and goodwill impairments.

### Table 3.6
Summary of the literature about CEOs tenure and goodwill impairments

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Period</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamberg et al. (2011)</td>
<td>Sweden</td>
<td>2004</td>
<td>Sig</td>
</tr>
<tr>
<td>Iatridis and Senfilechner (2014)</td>
<td>Austria</td>
<td>2006-2011</td>
<td>Insig</td>
</tr>
<tr>
<td>Omar et al. (2015)</td>
<td>Malaysia</td>
<td>2006-2008</td>
<td>Sig</td>
</tr>
<tr>
<td>Ramanna and Watts (2012)</td>
<td>U.S.</td>
<td>2003 and 2006</td>
<td>Sig</td>
</tr>
</tbody>
</table>

Note. (Sig) denotes a significant relationship whereas (Insig) denotes an insignificant relationship.

### 3.2.3 Control Variables

#### 3.2.3.1 Relative Amount of Goodwill

Previous studies have shown that a firm with a larger magnitude of goodwill relative to its asset composition is likely to incur a greater amount of goodwill impairment. The argument is that the relative magnitude of goodwill that is susceptible to the possibility of impairment will be greater (AbuGhazaleh et al., 2011; Giner & Pardo, 2014; Hamberg et
al., 2011; Lapointe-Antunes et al., 2008; Zang, 2008). The empirical evidence as shown
evidence that the probability of reporting impairment charges increases in firms that have
large amounts of goodwill (Giner & Pardo, 2014; Lapointe-Antunes et al., 2008; Zang,
2008). Therefore, the current study predicts a positive association between this variable
and goodwill impairments.

3.2.3.2 Number of Operating Segments

MFRS 136 stipulates clearly that firms should allocate goodwill arising from business
combinations to CGUs that are expected to benefit from the synergies of the two merging
entities (MFRS 136, para. 80). However, if the joint CGUs produce the synergistic effects
of goodwill, then no meaningful way exists to allocate goodwill to CGUs (Watts, 2003).
More specifically, Watts (2003) emphasized that synergies denote joint costs and
benefits. Further, accounting text books suggest that allocation of joint costs and benefits
for evaluation purposes is subjective and meaningless.

The expectation is that managers of firms with many CGUs have more discretion to
decide when and how much to impair goodwill (Beatty & Weber, 2006; Ramanna &
Watts, 2012). For example, they can overestimate or underestimate the extent of
impairment charges by allocating goodwill to either high or low growth CGUs (Chao &
Horng, 2013; Ramanna & Watts, 2012). Moreover, the expectation is that firms with
many cash generating units will conduct more impairment review. Hence, a greater
amount of goodwill impairment would be incurred because realized loss in a particular
unit cannot be netted against growth in another (AbuGhazaleh et al., 2011; Lapointe-Antunes et al., 2008).

Consistent with arguments, the empirical evidence by Lapointe-Antunes et al., (2008), and Verriest and Gaeremynck (2009) showed a positive association between the number of CGUs and goodwill impairment. However, empirical data about the number of CGUs is not sufficiently available in the firms’ annual reports. Hence, consistent with Ramanna and Watts (2012), the current study uses the number of operating segments as a proxy for the number of CGUs. Summing up, it can be concluded that the more numerous the operating segments, the greater managerial discretion is in identifying future impairments (Ramanna & Watts, 2012).

3.2.3.3 Additions to Goodwill

This proxy attempts to capture mergers and acquisitions activities (AbuGhazaleh et al., 2011). The notion is that firms with more merger and acquisition activities are likely to incur greater amounts of impairment. This is because any unsuccessful acquisition may result in recognising impairment charges that will be offset by additional capitalization of goodwill (AbuGhazaleh et al., 2011). AbuGhazaleh et al (2011) empirical study reported a significant positive association between goodwill impairments and additions to goodwill. Thus, the current study predicts that additions to goodwill are associated with increased impairment charges.
3.2.3.4 Firm Size

Prior research has employed firm size to capture several underlying firm attributes (Godfrey & Koh, 2009; Zang, 2008). Typically, studies use firm size as a surrogate for political costs (Chalmers et al., 2011). The argument is that large firms are more susceptible to possible political costs and public scrutiny than small firms and are more likely to choose conservative accounting policies (Scott, 2012; Watts & Zimmerman, 1986). Furthermore, size may capture a firm’s capabilities for implementing sophisticated goodwill impairment testing processes (Chalmers et al., 2011; Godfrey & Koh, 2009). Additionally, this variable could be a proxy for the frequency of past acquisitions (Zang, 2008). More precisely, large firms may engage in more mergers and acquisition activities than do small firms. Hence, the probability of goodwill impairment may differ between large and small firms (Zang, 2008).

Consistent with the above discussion, prior research has found that larger firms report a greater magnitude of goodwill impairment than do smaller firms (Beatty & Weber, 2006; Chalmers et al., 2011; Giner & Pardo, 2014; Godfrey & Koh, 2009; Mohd-Saleh & Omar, 2014; Zang, 2008). This provides a reasonable suggestion that large firms try to reduce wealth transfers caused by adverse political actions, and the assumption is that large firms have greater capabilities such as financial experts, internal audit units and so on that are needed to implement the rigorous impairment review (Chalmers et al., 2011). Thus, the current study predicts positive association between firms’ size and goodwill impairments.
3.3 Empirical Research on Code of Corporate Governance

It has been argued that codes on corporate governance are important mechanisms that allow a shareholder to reduce managerial discretion and thus, to increase the reliability of financial statements (Alonso-Pauli & Pérez-Castrillo, 2012; Chen & Zhang, 2014). The corporate governance literature reinforces such arguments by showing evidence that corporate governance codes mitigate earnings management, improve financial reporting quality, and increase firm value (Chen & Zhang, 2014; Cohen, Dey, & Lys, 2008; Dahya, Mcconnell, & Travlos, 2002; Ghosh et al., 2010; Peasnell et al., 2000).

Of the literature particularly related to this current study is Peasnell et al. (2000) work that examined the impact of Cadbury Committee Report (1992) on the association between accrual-based earnings management and board composition. While they failed to find evidence of a significant association between the board composition and the level of earnings management in the pre-Cadbury period, they found a significant negative association between the proportion of outside board directors and income-increasing accruals in the post-Cadbury period. The authors suggested that directors on the boards performed their duties more effectively after the implementation of Cadbury Report. In a related study, Dahya et al. (2002) examined the impact of the Cadbury report on the relationship between firm performance and top management turnover. Their findings were consistent with the notion that firms adopting the Cadbury recommendations exhibited greater sensitivity in the relationship of performance to top management turnover.
In China, Chen and Zhang (2014) examined the effectiveness of the voluntary 2002 Chinese Code of Corporate Governance for Listed Companies on curbing opportunistic earnings management. The study reported that the code improved the effectiveness of the corporate governance mechanisms in constraining earnings management. Moreover, the authors found that the code had greater positive impact on privately controlled firms as compared to state-controlled firms. Their study recommended additional ownership structural reforms to improve corporate governance in China.

In Mexico, Machuga and Teitel (2007) examined whether the implementation of the 2000 Mexican Corporate Governance Code improved earnings quality. They found improvement in earnings quality subsequent to the introduction of the code employing several metrics for earnings quality. These metrics include conditional accruals, timely loss recognition and income smoothing. In another study, Machuga and Teitel (2009) found no improvement in earnings quality for firms having shared directors and concentrated family ownership after the implementation of Mexican Corporate Governance Code. They suggested that applying governance reforms, without considering country specific legal and business environments might impede the achievement of the desired goals of changes.

In Malaysia, previous studies investigated the impact of MCCG on disclosure quality, firm performance, and earnings quality (Abdifatah, 2014; Abdul Wahab et al., 2007; Lim, Ismail, & Eze, 2013; Lim, How, & Verhoeven, 2014; Salleh & Haat, 2013). However, none of these studies investigated data during the pre- and post-MCCG 2012 regimes. For
example, Abdul Wahab et al. (2007) found improvement in disclosure relating to corporate governance practices and the role played by institutional investors in ensuring governance quality in the post-MCCG regime. Furthermore, they found that the introduction of MCCG 2000 led to a 5% increase in stock price performance.

In a related study, Salleh and Haat (2013) compared the association between audit committee diversity and accrual-based earnings management between the pre- and post-revised MCCG regimes. The study presented evidence that the mere existence of Malay directors on audit committee was negatively related with earnings management during the post-revised MCCG regimes. Abdifatah (2014) found that, except for the number of board meetings, none of corporate governance variables exhibited a significant association with firm performance between the pre- and post-revised MCCG regimes. He suggested that the code on corporate governance was inappropriate for the Malaysian corporate environment because it was initially adopted from country with different institutional settings.

Overall, previous studies in Malaysia are inconsistent and provide limited evidence on whether MCCG 2012 provides positive impacts for shareholders. To the extent that the new code has improved the effectiveness of corporate governance and limited the ability of managers to use their discretion, the association between goodwill impairments with financial factors and managerial agency-based motives may differ across the pre- and the post-MCCG 2012 regimes.
3.4 Summary

In this chapter, the study discussed the main theories that predict the relationship between the variables included in the empirical analysis. The study then reviewed the literature needed to understand the phenomena under investigation and to develop the theoretical framework. The next chapter elaborates the theoretical frameworks and develops the study hypotheses.
CHAPTER FOUR THEORETICAL FRAMEWORKS AND HYPOTHESES

DEVELOPMENT

4.0 Overview of the Chapter

In this chapter, the study presents the theoretical framework and develops testable hypotheses. The remainder of this chapter is structured as follows. Section 4.1 explains the underpinning theories that are applicable to this study. Section 4.2 develops the study hypotheses, while Section 4.3 summarizes the chapter.

4.1 Underpinning Theories.

Theories are needed to clarify relationship or predict certain phenomena (Wolk et al., 2013). This study adopts agency theory and signaling theory to explain the phenomena investigated in the current research. These theories are explained below.

4.1.1 Agency Theory

Agency theory provides the theoretical support for the most accounting studies (Jensen & Meckling, 1976). The theory attempts to explain the relationship between shareholders and managers (Godfrey et al., 2010). An agency relationship is established when shareholders employ managers to perform duties on their behalf (Kirby & Davis, 1998). However, due to the separation of ownership and management in corporate organizations, the relationship between inside managers and outside shareholders is fuelled with conflicting interests (Dey, 2008). For example, managers may not always act in the shareholders' fundamental interests. They could pursue their own private incentives when opportunities arise at the expense of shareholders (Florackis & Ozkan, 2009).
These conflicting interests, commonly known as agency problem, arise from two main sources. First, managers and shareholders have different objectives and interests (Gillan & Starks, 2003). Second, they have incomplete information as to each other’s behaviors, knowledge and interests (Gillan & Starks, 2003). These issues lead to agency costs that are defined as a reduction in shareholder wealth, resulting from the differences in interests between managers and shareholders (Godfrey et al., 2010). Farber (2005) notes that, as there is a separation of ownership and management, agency costs will continue to persist over time in organizations.

To reduce some agency costs, both managers and shareholders have incentives to enter into contracts delineating their relationship with the firms (James, How, & Verhoeven, 2008; Watts & Zimmerman, 1979). Examples of contractual agreements include debt covenants and management compensation agreements (Fields et al., 2001). These contracts are often linked to accounting amounts such as earnings (Ronen & Yaari, 2008). Unfortunately, contracting alone cannot prevent all unethical activities by managers (Watts & Zimmerman, 1990). Specifically, managers may use their discretion offered in accounting standards to alleviate the constraints imposed by these contracts, resulting in accounting information that does not reflect the underlying economic performance of the firm (Warfield et al., 1995). The remainder of this section explains the implications of the agency theory to goodwill impairments, corporate governance, and applicability of this theory in the Malaysian context.
4.1.1.1 Agency Theory and Accounting Discretion in Goodwill Impairments

Based on the earlier discussion, agency theory provides predictions about managers' accounting policy choices in goodwill impairment charges. These predictions include:

1. Debt covenants. To reduce the probability of debt covenants default, managers are likely to select accounting procedures that maximize reported profit (Watts & Zimmerman, 1986). By doing so, they can transfer wealth from debt holders to shareholders (Nikolaev, 2010). Therefore, firms that are approaching debt default are less likely to recognize goodwill impairments (e.g., Beatty & Weber, 2006; Lapointe-Antunes et al., 2008; Riedl, 2004; Zang, 2008). Following AbuGhazaleh et al. (2011), this current study uses debt ratio as a proxy for the debt covenant hypothesis.

2. Managers' performance-based compensation plan. Fields et al. (2001) argued that managers are more likely to employ accounting policies that increase their compensation. Beatty and Weber (2006) documented that managers of firms that have an earnings-based bonus plan are less likely to recognize goodwill impairments. However, Healy (1985) claimed that the details of the bonus computations vary across plans. Managers' motives to record greater earnings in a particular year may differ with these details (Chao & Horng, 2013). In Malaysia, the details data is unavailable with respect to compensation arrangements. Hence, similar to Chao and Horng (2013), this current study uses more general proxies such as big bath and income smoothing. The expectation is that managers of firms with abnormally high (low) performance will disclose greater amounts goodwill impairments in order to
enjoy higher performance-linked compensations. For example, if managers cannot distort reported earnings to achieve the bonus target, they will attempt to deflates earnings through taking a “big bath” reporting behavior in order to record superior performance in the subsequent year and, therefore, future bonuses (Chao & Horng, 2013). Alternatively, the smoothing literature indicated that when earnings are above normal expectations and bonuses have already reached the bonus cap or a target budget has been achieved, managers have incentives to shift future impairments into current period in favor of enjoying higher performance-linked compensations in the subsequent years (Francis et al., 1996; Holthausen et al., 1995; Murphy, 2001).

3. Blaming departing CEOs. New CEOs have an incentive to take a big bath approach by reporting large amounts of goodwill impairments in the initial year of CEO change in order to maximize earnings in the subsequent years, while blaming the departing CEO for the poor acquisition they made (Lapointe-Antunes et al., 2008; Ronen & Yaari, 2008). Thus, it is reasonable to expect a positive association between goodwill impairments and CEO change.

4. Reputation incentives. Fama (1980) claimed that the managerial labour market may mitigate the natural agency problem between investors and top executives. The notion is that the managerial labour market constantly assesses the performance of managers (Scott, 2012). Hence, senior management or those who made the acquisition in a business combination transaction are probably less likely to disclose goodwill impairments. Because doing so indicates that the acquisition price was exaggerated or
they failed to achieve the promised synergies from the acquisition. Thus, disclosing impairment charges may damage the reputation of managers in the eyes of capital markets (Beatty & Weber, 2006; Ramanna & Watts, 2012; Zang, 2008). In this current study, CEO tenure is used as proxy for CEO reputational concern. It has been argued CEOs with long tenure are likely to initiate the original acquisition decision that generated the present impairments (Ramanna & Watts, 2009). Hence, it could be that senior CEOs are reluctant in disclose goodwill impairments.

4.1.1.2 Agency Theory, Corporate Governance and Goodwill Impairments

Based on the above discussion, the relationship between top managers and shareholders is filled with conflicting interests resulting from the separation of ownership and management, the differing objectives of top managers and investors, and information asymmetry between less informed investors and more informed executives (Dey, 2008). Managers may employ their accounting discretion opportunistically to achieve some of their own private incentives (Roychowdhury & Martin, 2013). This motivates shareholders to set up mechanisms in order to prevent undesirable managerial activities (Jensen & Meckling, 1976). As a consequence, corporate governance is designed to mitigate the potential conflicts between the managers and shareholders and to lower the agency costs for all parties (Fama & Jensen, 1983; Jensen & Meckling, 1976).

In light of the above discussion, previous studies have revealed that a code of corporate governance serves as a mechanism to curb the opportunistic behaviors by managers, improve earnings quality, and enhance firm performance (Chen & Zhang, 2014; Cohen et
For example, Cohen et al. (2008) found a significant decline in accrual earnings management subsequent to Sarbanes-Oxley Act (SOX) period. Likewise, Chen and Zhang (2014) showed evidence that accrual based earnings management is less pronounced in the post Chinese Code of Corporate Governance period. Machuga and Teitel (2007) revealed improvement in earnings quality after the implementation of the voluntary Corporate Governance Code in Mexico. Lim et al. (2014) found some evidence that MCCG had a positive effect on the timeliness of earnings.

Furthermore, one of the key objectives of MCCG 2012 was to improve shareholders’ protection and market confidence by ensuring that firm’s financial statements are a reliable source of information. It also emphasized on strengthening board structure and composition recognising the role of directors as active and responsible fiduciaries (Securities Commission, 2012). Based on the aforementioned discussion, it is reasonable to argue that the adoption of MCCG 2012 by Malaysian-listed companies might improve the effectiveness of corporate governance in curbing unethical earnings management and ensuring that goodwill impairments reflect the underlying economic performance of the firms. Therefore, the relationship between goodwill impairments with financial factors and managerial agency-based motives may differ between the pre- and post-MCCG 2012 regimes.

Scholars have also argued that the unverifiable fair value estimates in goodwill impairment lead to high information asymmetry between shareholders and managers (Ramanna & Watts, 2012). Information asymmetry, in turn, increases the scope for the
moral hazard problem when managers have motives to promote their private interests in an opportunistic sense (Ashbaugh-Skaife, Collins, & LaFond, 2006). Therefore, shareholders may view that there are increased opportunities for earnings management in firms with weak corporate governance mechanisms. This could then result in goodwill impairments devoid of relevant information to shareholders. Similarly, firms with effective corporate governance mechanisms could mitigate the information asymmetries associated with unverifiable fair value estimates in MFRS No. 136. Thus, shareholders may perceive goodwill impairments reported by well-governed firms to be more a reliable measure of a decline in the value of goodwill to incorporate them in their equity pricing decisions.

4.1.1.3 Application of Agency Theory in the Malaysian Context
Importantly, however, the traditional agency theory is inapplicable in the Malaysian context (Htay et al., 2013). That is, the extent of ownership concentration affects the nature of the relationship between owners and managers (Fan & Wong, 2002). More precisely, as outside ownership increases, owners may gain effective control of a company. Therefore, the nature of the agency problem shifts away from the traditional conflict of interest between shareholders and managers to a conflict between majority and minority shareholders (Fan & Wong, 2002). In other words, if a small group of owners with majority ownership dominates control of the company's management, then the possibility of the majority shareholders utilizing earnings management to camouflage company earnings and to expropriate the best interests of minority shareholders is high (Chen & Zhang, 2014; Jaggi et al., 2009). By contrast, when the ownership is diffuse, as
in Western countries, agency theory is rooted mainly in the conflict of interest between shareholders and managers who possess an immaterial amount of outstanding shares (Fan & Wong, 2002; Jensen & Meckling, 1976).

As a result, given that Malaysian companies are characterised by a high level of ownership concentration and the wide prevalence of family-controlled businesses (Liew, 2007; Mustapha & Che-Ahmad, 2011), investors are more likely to be exposed to the Type II agency problem (conflict between majority and minority investors) than the traditional agency problem (conflict between executives and investors) (Jaggi et al., 2009; Villalonga & Amit, 2006). Hence, the conclusion can be drawn from the above discussion that corporate governance in Malaysia is mostly intended to alleviate the conflicts between majority and minority shareholders (Htay et al., 2013).

4.1.2 Signaling Theory

Fields, Lys, and Vincent (2001) explained that one main reason underlying accounting choices is signaling information. The theory suggests that managers exercise their discretion to disclose their expectations about firm future performance (Subramanyam, 1996; Watts & Zimmerman, 1990). This role is practiced by managers because they have a comparative advantage over the creation and publishing of the accounting information (Godfrey et al., 2010).

Managers engage in such behavior to resolve the problems caused by information asymmetries (Loh & Tan, 2002). Specifically, when information asymmetry between the
parties is high, outsiders seek to shield themselves by offering a lesser price for the firm (Wolk et al., 2013). Thus, managers have incentives to reduce the level of the uncertainty about a firm's future prospects by signaling credible information to shareholders (Wolk et al., 2013). Such behavior could result in reducing the costs of capital because fewer uncertainties about the firms underlying economic attributes exist (Wolk et al., 2013).

It is important to note, however, that, while the information perspective is similar to the efficient contractual perspective in which the managers provide relevant information to outsiders, resulting in the reduction of both the costs of ex-post settling up and monitoring costs, key differences between the two perspectives exist (Godfrey et al., 2010). According to Holthausen (1990), the timing of accounting information and cash flow are the main distinctions between the information perspective and the contracting perspective. In particular, under the efficient contracting point of view, accounting amount mirrors the change in cash flow that influences firm value. Thus, accounting information is employed to confirm or monitor transactions that have occurred. In contrast, under the information perspective, accounting information precedes (predicts) the cash flows that influence the value of the firm. The accounting information is employed to illustrate how the value of the firm and claims against it will change (Godfrey et al., 2010).

Accordingly, the informational perspective expects that managers exploit their discretion to disclose superior information about the underlying economic attributes of the firms. Arguably, they are in the best position to evaluate the events and their influence on a
firm’s value (Roychowdhury & Martin, 2013). As a result, the current study predicts that goodwill impairments are more likely to communicate manager's expectations about a firm's future cash flows if they are significantly associated with firms’ market value of equity.

4.1.3 Other Theories

A growing number of studies adopt a resource dependency lens that views firms as operating in an dynamic system and needing to exchange and obtain particular resources in order to survive, generating a dependency between the business and external parties (Terjesen, Sealy, & Singh, 2009). These dependencies create risks to the firms (Liu, Wei, & Xie, 2014). Hence, firms attempt to mitigate the dependencies and their corresponding uncertainties by developing linkages to the external units that control either the critical resources or the most useful resources (Liu et al., 2014; Nienhüser, 2008; Terjesen et al., 2009). For example, Pfeffer and Salancik (1978) mentioned that board linkages provide three benefits. These benefits are advice and counsel, legitimacy and communication channels (Liu et al., 2014).

Based on these benefits, the contribution corporate directors make are essential to overall board effectiveness (Goh & Gupta, 2015). The argument has been made that a larger board/audit committee may provide a firm with greater opportunities to access the resources needed (Kiel & Nicholson, 2003). Furthermore, resource dependence theory supports the argument that members of the audit committee with financial expertise may improve the effectiveness of corporate governance (Cohen, Krishnamoorthy, & Wright,
2008). To conclude, the resource dependence theory provides further support to the importance of board/audit committee in ensuring effective governance structure.

Furthermore, Cahan (1992) indicates that managers of highly visible firms are more likely to select accounting procedures that reduce the likelihood of wealth transfers arising from regulations. The argument is that large firms are likely to attract more media and public scrutiny than are small firms. Such scrutiny can be converted into political action against the firm such as antitrust action and excess profits taxation (Ball & Foster, 1982; Godfrey & Koh, 2009; Scott, 2012). Thus, large firms are more prone than small ones are to select accounting procedures that minimize profits in order to avoid political costs (Watts & Zimmerman, 1990). Hence, political cost theory predicts that large firms are more likely to disclose goodwill impairment as they reduce reported earnings.

4.2 Hypotheses Development

In this section, six main hypotheses are developed to test the relationships between the variables included in the regression models. Specifically, this study begins by developing the hypotheses related to value relevance of goodwill impairments. The study then develops hypotheses related to determinants of goodwill impairments. Finally, the study develops the hypotheses related to comparison of the determinants of goodwill impairments across the pre- and the post-MCCG 2012 regimes.
4.2.1 Value relevance study

4.2.1.1 The Value Relevance of Goodwill Impairments

Holthausen (1990) stated that managers have superior advantage over the creation and dissemination of accounting information. Managers can take action to minimize the information asymmetry between less-informed shareholders and better-informed managers (Fields et al., 2001). By doing so, they could reduce the level of uncertainty about firm performance and thus improve a firm’s value (Wolk et al., 2013). Although in some cases, managers may manipulate the estimates used in a goodwill impairment test and thus reduce the willingness of investors to rely on goodwill impairment charges, previous studies also have indicated that managers may release their inside information on future cash flows through the discretionary goodwill impairment (AbuGhazaleh et al., 2011).

Following these arguments, this current study argues that managers’ discretionary behavior improves the informational value of goodwill impairments if these charges are significantly associated with firms’ market value. Otherwise, the extensive managerial discretion in goodwill impairment could hamper their relevance to shareholders, consistent with the criticisms that fair value based impairment reviews are exposed to greater managerial opportunism.

Inconsistent findings exist for the informativeness of goodwill impairments to shareholders. Although AbuGhazaleh et al. (2012), Chen et al. (2008), Lapointe-Antunes et al. (2009), and Xu et al. (2011) found evidence that goodwill impairments are value
relevant, Bens et al. (2011), Hamberg and Beisland (2014), and Hulzen et al. (2011) found the results to be otherwise. Therefore, based on the ex-ante conflicting results, and given that the capital market in Malaysia is reasonably efficient in reflecting all news in stock prices (Hussin et al., 2010), this study examines whether goodwill impairment is value relevant. Hence, the hypothesis is:

H1: Goodwill impairment losses under MFRS No. 136 are value relevant.

4.2.1.2 The moderating Role of Corporate Governance

Holthausen and Watts (2001) claimed that, if there were managerial incentives to manipulate accounting information and introduce measurement errors, then the lack of verifiability would destroy the reliability attribute and the usefulness of the accounting information. Lapointe-Antunes et al. (2009) pointed out that corporate governance mechanisms could constrain managerial opportunisms, and therefore increase shareholders’ valuation of accounting information.

Song et al. (2010) suggested that effective corporate governance mechanisms play a critical role in enhancing the usefulness of accounting information where information asymmetry was high. Minnick (2011) argued that investors' assessments of bad news depend on their perceptions regarding the managerial motives and the quality of corporate governance. More importantly, agency theory supports the notion that higher-quality governance mechanisms should lead to enhancing the integrity financial reporting of the firm (Habib & Azim, 2008).
Empirically, Lapointe-Antunes et al. (2009) found improvement in the value relevance of goodwill impairments recorded by Canadian firms, which had a higher proportion of outside directors and financial experts on their audit committee. Consequently, shareholders could regard goodwill impairments reported by firms with strong corporate governance as being more reliable measures of a decline in the economic value of goodwill to incorporate them in their equity valuations. Therefore, it is hypothesized that:

H2: Corporate governance attributes affect the value relevance of goodwill impairment losses under MFRS No. 136.

Figure 4.1 below presents the first theoretical framework of the study. In the figure, corporate governance is a composite measure acting as a moderating effect between goodwill impairments and a firm’s market value of equity. It comprises board independence, board size, separate roles of the CEO and chairman, number of board meetings, audit committee independence, audit committee size, number of audit committee meetings, audit committee expertise, the presence of a Big 4 auditor, sourcing arrangements of the internal audit function, managerial ownership, non-executive directors’ ownership, and institutional ownership.
4.2.2 Determinants Study

4.2.2.1 Book-to Market-Value

Book-to market-value represents the inverse measure of a firm’s growth opportunities (Boone, Khurana, & Raman, 2010). It has been argued that one important factor indicating a potential reduction in the value of goodwill is the carrying amount of the net assets of the firm is more than its market capitalisation (MFRS 136, para 12d). Therefore, firms with low growth opportunities are more likely to report goodwill impairments (AbuGhazaleh et al., 2011; Beatty & Weber, 2006; Chen et al., 2015; Godfrey & Koh, 2009; Jarva, 2014).

Empirical studies have shown a positive association between book-to-market value and goodwill impairments (AbuGhazaleh et al., 2011; Jarva, 2014). Hence, the expectation is that the likelihood of reporting goodwill impairments increases in firms that experience high book-to-market value (AbuGhazaleh et al., 2011). Therefore, it is hypothesized that:
4.2.2.2 Stock Performance

Stock performance is considered to be an important factor affecting the choice of managers to report impairment charges (Giner & Pardo, 2014). The notion is that the probability of goodwill impairments is higher in firms with poor stock performance. Several studies have shown evidence of a negative association between stock performance and goodwill impairments (Francis et al., 1996; Godfrey & Koh, 2009; Jarva, 2014; Li et al., 2011; Riedl, 2004; Zang, 2008). This leads to the following hypothesis:

\[ H3_b: \text{Firms with a poor stock performance are more likely to recognize greater amount of goodwill impairments.} \]

4.2.2.3 Change in Sales

Change in sales represents a gross measure of a firm’s performance and is expected to be significantly associated with the likelihood of goodwill impairment (AbuGhazaleh et al., 2011; Hayn & Hughes, 2006). The argument is that firms with unfavorable performance as indicated by negative change in sales are likely to recognize goodwill impairments (AbuGhazaleh et al., 2011; Riedl, 2004). For example, Chen et al. (2015), and Hayn and Hughes (2006) show evidence that reported impairment losses are significantly related to a change in sales. Hence, the study postulates the following hypothesis:

\[ H3_c: \text{Firms with a high book-to-market value are more likely to recognize greater amount of goodwill impairments.} \]
$H3_c$: Firms with a negative change in sales are more likely to recognize larger amount of goodwill impairments.

4.2.2.4 Return on Assets (ROA)

Previous studies have indicated that return on assets (ROA) plays significant role in the choice of managers in reporting impairment charges (AbuGhazaleh et al., 2011; Zang, 2008). They have suggested that the more deteriorated the ROA, the higher the magnitude of impairments recognized. Empirically, AbuGhazaleh et al. (2011), Hayn and Hughes (2006), Mohd-Saleh and Omar (2014), Omar et al. (2015), and Zang (2008) found evidence that ROA is an important factor in interpreting goodwill impairments. Therefore, the study postulates the following hypothesis:

$H3_{d}$: Firms with a poor return on assets are more likely to recognize larger amount of goodwill impairments.

4.2.2.5 Change in Operating Cash Flows (OCF)

Change in operating cash flow flows (OCF) captures the net measure of the underlying economic attributes of the firms (Riedl, 2004). The argument is that determining value in use (VIU) is largely dependent on a manager’s projections about firm future cash flow prospects (AbuGhazaleh et al., 2011). Thus, firms with a negative change in OCF are likely to recognize a greater magnitude of impairment charges. AbuGhazaleh et al. (2011), and Greco et al. (2015) documented that the likelihood of reporting impairment
charges is significantly associated with a change in operating cash flows (OCF). Accordingly, the study posits the following hypothesis:

\( H3_e: \) Firms with a negative change in operating cash flow flows (OCF) are more likely to recognize larger amount of goodwill impairments.

### 4.2.2.6 Debt Ratio

Watts and Zimmerman (1986, p.215-216) asserted that managers of firms that are near to breaching the accounting-based covenants existing in debt contracts adopt profit-minimizing behaviors to avoid costly violating of debt agreements. In this study, debt ratio is used as proxy to capture a firm's closeness to violate debt contracts. Therefore, firms with larger debt ratios are less likely to report goodwill impairments, to prevent further deterioration in debt ratios, and to incur excess borrowing costs (Loh & Tan, 2002). Omar et al. (2015), and Zang (2008) found evidence that firms with a higher leverage ratio are less likely to record goodwill impairments. The above arguments lead to the following hypothesis:

\( H4_a: \) There is a significant negative association between the level of debt and recorded goodwill impairments.

### 4.2.2.7 Big Bath Behavior

Previous studies show that managers utilize the discretion granted by the impairment approach to overstate the true extent of impairment losses by engaging in big bath
behavior when a firm’s performance is low (Jarva, 2014). By undertaking such behavior, they may cut future costs (Hilton & O’Brien, 2009) and report higher performance-linked compensation (Loh & Tan, 2002).

Many empirical studies have found that big bath behavior plays an important role in influencing the choices of managers with respect to goodwill impairments (Abdul Majid, 2015; Abuaddous et al., 2014; AbuGhazaleh et al., 2011; Giner & Pardo, 2014; Greco et al., 2015). The above arguments lead to the following hypothesis:

\[ H4_b : \text{Firms with unfavorable change in pre-impairment earnings are more likely to record a greater magnitude of goodwill impairments.} \]

4.2.2.8 Income Smoothing

Income smoothing is an earnings management behavior referring to efforts made by managers to reduce unexpected economic shocks by engaging in income-decreasing accounting procedures to generate “cookie-jar” reserves when the current firms performance is high (Chao & Horng, 2013; Duh, Lee, & Lin, 2009; Krishnan & Parsons, 2007). Therefore, managers of firms with favorable change in earnings may exercise their discretion to report goodwill impairments in order to shift future losses to current period (AbuGhazaleh et al., 2011; Francis et al., 1996). Empirically, income smoothing has been found to be associated with increased goodwill impairment impairments in numerous prior studies (Abdul Majid, 2015; AbuGhazaleh et al., 2011; Chen et al., 2015; Giner & Pardo, 2014). Therefore, it can be hypothesized that:
$H4_c$: Firms with favorable change in pre-impairment earnings are more likely to record a greater magnitude of goodwill impairments.

4.2.2.9 CEOs Change

Previous studies indicate that incoming CEOs are inclined to take a large hit to earnings in an earlier period of CEO changes by reporting an excessive amount of goodwill impairments. By doing so, they can show superior performance in subsequent years, while blaming the departing CEOs for the poor acquisition they made (Giner & Pardo, 2014; Lapointe-Antunes et al., 2008; Zang, 2008). For example, AbuGhazaleh et al. (2011), Lapointe-Antunes et al. (2008), Omar et al. (2015), and Zang (2008) found a significant positive association between goodwill impairments and CEO changes. Hence, the study postulates the following hypothesis:

$H4_d$: Firms that face a new change in senior CEO are more likely to record greater a magnitude of goodwill impairments.

4.2.2.10 CEOs Tenure

Lapointe-Antunes et al. (2008) posited that managers who initiated an acquisition decision are more likely to be reluctant to report goodwill impairments than those who did not. That is because doing so denotes that the amounts of consideration paid by an acquirer may have been abnormally high or the expected synergies from combining the business have failed. Thus, recording goodwill impairments may distort the image of the management in the eyes of the capital markets (Zang, 2008).
Alternatively, the changing business environment and macro-economic factors as well as market wide conditions may make it possible for a good acquisition to become a bad one. Therefore, managers who made acquisition decisions may have no reasons to avoid goodwill impairments (Beatty & Weber, 2006). The empirical evidence has shown a negative association between goodwill impairments and CEO tenure (Beatty & Weber, 2006; Ramanna & Watts, 2012). Consequently, the study posits the following hypothesis:

\[ H_{4e} : \text{Firms with CEOs that have a longer tenure are less likely to record goodwill impairment.} \]

4.2.3 MCCG 2012 Study
As discussed earlier, goodwill impairments are a function of financial factors and reporting incentives (AbuGhazaleh et al., 2011; Chao & Horng, 2013; Riedl, 2004). For example, when an acquired business suffers from deteriorating performance, and evidence exists that the recoverable amount of the cash generating unit (CGU) has been impaired, the company should estimate the recoverable amount (MFRS No. 136, paragraph, 6). If, as a result of this, the recoverable amount of a CGU is lower than its carrying amount, managers should immediately recognize impairment charge (MFRS No. 136, paragraph, 6). Thus, poorly performing firms are expected to report greater amounts of goodwill impairments (Giner & Pardo, 2014).

Similarly, in the absence of effective corporate governance mechanisms, managers may exploit the flexibility granted by the standards to manage earnings in situations in which
they have agency-based motives to do so (Ramanna & Watts, 2009). These motives are associated with debt covenants, big bath behavior, income smoothing, CEO change, and CEO tenure. Hence, well-functioning corporate governance is crucial for monitoring and disciplining managers from pursuing their own interests (Wines et al., 2007). Within this context, prior studies have indicated that voluntary codes on corporate governance can mitigate earnings management, improve earnings quality and firm value (Chen & Zhang, 2014; Christensen, Kent, Routledge, & Stewart, 2013; Machuga & Teitel, 2007; Peasnell et al., 2000).

In Malaysia, corporate governance has been enhanced recently through the promulgation of the MCCG 2012, as a consequence of a series of corporate scandals that continued to occur in the Malaysian business environment (Governance Newsletter, 2010). The main objectives of MCCG 2012 were to strengthen board structure and composition, recognize the role of directors as active and responsible fiduciaries, enhance the integrity of the financial statements, and respect shareholders rights (Securities Commission, 2012).

Notwithstanding that MCCG 2012 includes significant changes (The Star News, 2012), the opponents argue that the impact of those changes is questionable as the code largely followed the Anglo-American approach in the United Kingdom (primarily from the recommendations of the Cadbury Report) that may not provide solutions to local problems (Htay et al., 2013; Vithiatharan & Gomez, 2014). Alternatively, goodwill impairments may have a greater association with financial factors, and a lower association with managerial agency-based motives in the post-MCCG 2012 regime, as
the new code may result in improving the effectiveness of governance mechanisms and limiting management’s opportunistic discretion in determining goodwill impairments.

Therefore, it is unclear whether the MCCG 2012 has improved reporting of goodwill impairments as captured by their association with financial factors and managerial agency-based motives in Malaysia. To the extent that MCCG 2012 is only box ticking behavior, no significant improvement in the reporting of goodwill impairments would be observed. The objective of this current study is to compare the association between goodwill impairments with financial factors and managerial agency-based motives across the pre- and the post-MCCG 2012 regimes. Therefore, this study postulates the following ten hypotheses:

$H_{5a}$: The association between goodwill impairments and book-to-market value differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{5b}$: The association between goodwill impairments and stock performance differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{5c}$: The association between goodwill impairments and change in sales differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{5d}$: The association between goodwill impairments and return on assets (ROA) differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{5e}$: The association between goodwill impairments and change in operating cash flow flows (OCF) differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{6a}$: The association between goodwill impairment and debt ratio differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.
$H_{6_b}$: The association between goodwill impairment and big bath behavior differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{6_c}$: The association between goodwill impairments and income smoothing differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{6_d}$: The association between goodwill impairment and CEOs change differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

$H_{6_e}$: The association between goodwill impairment and CEOs tenure differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.

Figure 4.2 below shows the second theoretical framework of this study. The study links financial factors shown on the left hand side and managerial agency-based motives shown on the right hand side with goodwill impairments shown at the centre of Figure 4.2. The link between goodwill impairments with financial factors and managerial agency-based motives is moderated by the MCCG 2012 shown at the bottom centre. Finally, this study links the control variables shown on the top centre with reported goodwill impairments.
Figure 4.2

*Theoretical framework: The determinants of goodwill impairments*
4.3 Summary

Based on the literature review and related theories, the study builds the theoretical frameworks that motivate the empirical analysis. This is followed by development of testable hypotheses. In brief, this study tests the determinants and value relevance of goodwill impairments. It also highlights the role of corporate governance in accounting discretion relating to goodwill impairments. The research methodology is discussed in the next chapter.
CHAPTER FIVE
RESEARCH DESIGN AND METHODOLOGY

5.0 Overview of the Chapter

This chapter presents the methodology used to answer the research questions. It has two main sections. First, the research design is described in Section 5.1. This section contains detailed discussions about the models and variables, the study period, the data sources, and the sample selection procedures. Second, a brief summary of the chapter is presented in Section 5.2.

5.1 Research Design

5.1.1 Empirical Models Related to Value Relevance Study

In the residual earnings model, the market value of a firm can be represented as a linear function of the book value of equity and current earnings (Beisland, 2013). This model is largely utilized in prior studies to examine the usefulness of accounting information to capital markets (e.g., Al Jifri & Citron, 2009; Baboukardos & Rimmel, 2014; Clarkson, Hanna, Richardson, & Thompson, 2011; Elshandidy, 2014). In this study, the following version of the modified Ohlson (1995) model is used to test the hypotheses:

\[ MVE_{it} = \beta_0 + \beta_1 BVE_{it} + \beta_2 EARNINGS_{it} + \varepsilon_{it} \]  

(1)

In equation (1) above, MVE denotes the market value of equity per share for firm i's, which is estimated at six months after the year-end. This study employs data from six-months after year-end prices because Malaysian firms are obliged, according to the
listing requirements of the Bursa Malaysia, to publish their financial statements to public within six months from the date of fiscal year-end (Bursa Malaysia, 2009). BVE represents the book value of equity for firm _i_'s, and EARNINGS stands for firm _i_'s reported pre-tax earnings. This study expects that the coefficient of BVE and EARNINGS to be statistically significant in explaining the market value of firms.

Since the objective of this study is to examine the value relevance of goodwill impairments, equation (1) is expanded by extracting goodwill (GWILL) from BVE and adding back goodwill impairment charges (IMPAIR) to both EARNINGS and GWILL, respectively, consistent with AbuGhazaleh et al. (2012), Lapointe-Antunes et al. (2009), and Xu et al. (2011), as shown in equation (2):

\[
MVE_{it} = \beta_0 + \beta_1(BVE - GWILL)_{it} + \beta_2(EARNINGS + IMPAIR)_{it} + \beta_3(GWILL + IMPAIR)_{it} + \beta_4IMPAIR_{it} + \epsilon_{it}
\]  

(2)

Accordingly, this current study constructs equation (3) below for the examination of the value relevance of goodwill impairments:

\[
MVE_{it} = \beta_0 + \beta_1BVE_{it} + \beta_2EARNINGS_{it} + \beta_3GWILL_{it} + \beta_4IMPAIR + \epsilon_{it}
\]  

(3)

As Barth and Clinch (2009) suggested, all variables are deflated by the number of common shares outstanding in order to mitigate scale effects in the price model. In addition, this study performs the Huber-White robust standard errors that are clustered at
the firm level to control for serial correlation and to correct for heteroscedasticity (Fung, Su, & Zhu, 2010).

To test the impact of corporate governance on the value relevance of goodwill impairments, this study follows AbuGhazaleh et al. (2011), Ammann et al. (2011), Dey (2008), Habib and Azim (2008), Kanagaretnam et al. (2007), Larcker et al. (2007), and Song et al. (2010) and performs principal component analysis (PCA) to summarize the information content of numerous variables into a small number of factors that capture different aspects of corporate governance quality.

Typically, PCA is a data crunching procedure that identifies factors or dimensions within a large dataset of variables (Meyers, Gamst, & Guarino, 2006). In the discussion of the objective of PCA, Everitt, (2010) stated:

> the general hope of PCA is that the first few components will account for a substantial proportion of the variation in the original variables $x_1, x_2, x_3, \ldots, x_g$, and can consequently, be used to provide a convenient lower-dimensional summary of these variables that might prove useful for variety of reasons (p. 184).

There are two key reasons for using PCA in this study. First, PCA automatically generates weights instead of using equal weights (Florackis & Ozkan, 2009). Thus, it enables the study to discover the anonymous nature of the factor structure that is invisible behind the original dataset (Ammann et al., 2011). Hence, the governance factors derived from PCA are likely to reflect the underlying dimension of the individual governance attributes (Larcker et al., 2007). Larcker et al. (2007) suggested that factors derived from
PCA have less measurement error than arbitrary indices, or individual corporate governance attributes.

Second, PCA allows the current study to condense many governance variables into a smaller number of factors. Prior studies incorporated a few governance attributes or took no notice of the multicollinearity problem that may arise when many governance attributes are included in the empirical tests (Florackis & Ozkan, 2009). Therefore, the empirical implementation of PCA is appropriate for this study. Based on the discussions, equation (4) below is used to investigate the impact of corporate governance on the value relevance of goodwill impairments:

\[
\text{MVE}_{it} = \beta_0 + \beta_1 \text{BVE}_{it} + \beta_2 \text{EARNINGS}_{it} + \beta_3 \text{GWILL}_{it} + \beta_4 \text{IMPAIR} + \beta_5 \text{FACTORS}_{it} + \beta_6 \text{FACTORS}_{it} \times \text{IMPAIR} + \epsilon_{it} \]

(4)

Where variables \text{FACTORS}_{it} represent summarized factors for governance variables obtained from PCA. These variables are board independence (BIND), board size (BOARDSIZE), separate roles of CEO and chairman (SEPCHAIR), frequency of board meetings (MEETING), audit committee independence (ACIND), audit committee size (ACSIZE), frequency of audit committee meetings (ACMEETING), audit committee expertise (ACEXPERTISE), presence of a Big 4 auditor (BIG4), sourcing arrangement of internal audit function (IAF), managerial ownership (EXEOWN), non-executive directors ownership (NONEXEOWN), and institutional ownership (INSITUTIONAL). The study discusses the measurement of these variables in the following paragraphs.
The variables BIND and ACIND stand for the percentage of independent directors on the board and audit committees, respectively (Kanagaretnam et al., 2007). Consistent with AbuGhazaleh et al. (2011), SEPCHAIR is an indicator variable that takes the value of one if the roles of chairman and CEO are not combined, and zero otherwise. BOARDSIZE and ACSIZE is the number of directors on the board and audit committee, respectively (Ghosh et al., 2010). Variables MEETING and ACMEETING are defined as the number of meetings held by the board and audit committee during the year, respectively (Dey, 2008).

Furthermore, ACEXPERTISE stands for the percentage of directors on the audit committee with sophisticated accounting expertise (Mohamad-Nor et al., 2010). Variable BIG4 is a dummy variable equal to one if the firm \( i \)'s is audited by one of the international audit firms (Ernst & Young, KPMG, PricewaterhouseCoopers, or Deloitte), and zero otherwise (Chen & Zhang, 2014). IAF is a dichotomous variable equal to one if firm \( i \)'s has established in-house internal audit function, zero otherwise (Wan-Hussin & Bamahros, 2013). EXEOWN is the total percentage of executive directors’ shareholding of the total shares issued (Mustapha & Che-Ahmad, 2011). Similarly, NONEXEOWN is measured as the total percentage of non-executive directors shareholding of the total shares issued (AbuGhazaleh et al., 2011).

Finally, variable INSITUTIONAL represents the total percentage of shares held by the institutional shareholders. They are the Permodalan Nasional Bhd “Berhad” (PNB), Pertubuhan Keselamatan Sosial (PERKESO), Employees Provident Fund (EPF),
Kumpulan Wang Persaraan (Diperbadankan), Lembaga Tabung Haji (LTH), Lembaga Tabung Angkatan Tentera (LTAT), and Khazanah Nasional Berhad (KNB) (Abdul Wahab et al., 2007; Ming et al., 2013; Securities Commission, 2014). The study focuses on these institutional shareholders because they have a large proportion of total institutional shareholdings listed on the Bursa Malaysia (Wahab et al., 2008).

5.1.2 Empirical Models Related to Determinants Study

In 1958, James Tobit introduced the Tobit model to resolve the relationship between a non-negative dependent variable. In this study, the use of Tobit regression is more suitable than OLS regression because the dependent variable is censored at zero (Boone & Raman, 2007). Thus, equation (5) below is employed to analyse the factors influencing goodwill impairments in Malaysia:

\[
\text{IMPAIR}_{it} = \beta_0 + \beta_1 \text{BVM}_{it} + \beta_2 \text{RETURN}_{it} + \beta_3 \Delta \text{SALES}_{it} + \beta_4 \text{ROA}_{it} + \\
\beta_5 \Delta \text{OCF}_{it} + \beta_6 \Delta \text{DEBT_RATIO}_{it} + \beta_7 \text{BATH}_{it} + \beta_8 \text{SMOOTH}_{it} + \\
\beta_9 \Delta \text{MGMT}_{it} + \beta_{10} \text{CEO_TENURE}_{it} + \beta_{11} \text{GWA}_{it} + \beta_{12} \text{SEGMENTS}_{it} + \\
\beta_{13} \text{ADD}_{it} + \beta_{14} \text{SIZE}_{it} + \epsilon_{it} 
\]

(5)

Where IMPAIR is firm i’s reported amounts of goodwill impairments (expressed as a positive number) divided by beginning of period total assets, zero otherwise (Chao & Horng, 2013). The reason for deflating the dependent variable by lagged total assets rather than earnings is to avoid the econometrics issue that appears from employing a small, and sometimes non-positive, denominator (Godfrey & Koh, 2009).
Building on prior literature, financial factors include $BVTM$ measured as firm $i$'s book value of equity (adjusted for goodwill impairment) deflated by market value of equity at the end of the year (AbuGhazaleh et al., 2011); $\text{RETURN}$ is firm $i$'s cumulative abnormal returns (CARs) over the year, whereby the market model (MM) is used to derive abnormal returns (Hayn & Hughes, 2006); $\Delta \text{SALES}$ is firm $i$'s change in sales from current year to prior year, deflated by lagged total assets (Riedl, 2004); $\text{ROA}$ is firm $i$'s pre-tax earnings at the end of prior year deflated by total assets (AbuGhazaleh et al., 2011); $\Delta \text{OCF}$ is firm $i$'s change in operating cash flow from the prior year to the current year divided by lagged total assets (Greco et al., 2015).

Five variables are employed to proxy for managerial agency-based motives to report goodwill impairments. $\text{DEBTRATIO}$ is the firm’s $i$'s debt ratio, measured as total debt divided by beginning of period total assets (AbuGhazaleh et al., 2011); Similar to AbuGhazaleh et al. (2011) and Riedl (2004), variables $\text{BATH}$ is firm $i$'s change in pre-impairment earnings from prior year to current year, divided by beginning of period total assets when this change is below the median of nonzero negative values, zero otherwise; Similarly, $\text{SMOOTH}$ is firm $i$'s change in pre-impairment earnings from the prior year to the current year, divided by beginning of period total assets when this change is above the median of nonzero positive values, zero otherwise (AbuGhazaleh et al., 2011; Riedl, 2004); $\Delta \text{AMGMT}$ is an indicator variable equal to one if the firm $i$’s CEOs replaced during the current or prior financial year, and zero otherwise (Boone & Raman, 2007); $\text{CEOTENURE}$ is the number of years that the firm’s CEO has been in charge in the position (Beatty & Weber, 2006).
Four variables are used to control for the amounts of goodwill impairments. GWA is defined as firm $i$'s opening carrying amount of goodwill for the firm $i$'s divided by the beginning of period total assets (AbuGhazaleh et al., 2011). Due to the lack of disclosure about the number of CGUs in Malaysia (Carlin et al., 2009a), the study follows Ramanna and Watts (2012) study and uses the number of business segments as a proxy for number of CGUs. Variable ADD is an indicator variable equal to one if firm $i$'s has newly acquired goodwill due to acquisitions activity, zero otherwise (AbuGhazaleh et al., 2011); SIZE is the natural logarithm of total assets at the end of the prior year (AbuGhazaleh et al., 2011). Appendix A presents a computation of financial variables used in the empirical models in detail.

To examine whether the association between goodwill impairments with financial factors and managerial agency-based motives differ across the pre-and post-MCCG 2012 regimes, this study separately estimates the regression models for the pre- and the post-MCCG 2012 subsamples. Then, the Wald test is conducted to decide if the coefficients for financial factors and managerial agency-based motives are statistically significantly different between the two subsamples.

Alternatively, the study includes a dummy variable CODE which equals one for the observation belongs to the post-MCCG 2012 regime, and zero otherwise. The study then introduces interaction effects by multiplying the variable CODE with each of the financial factors. Such a methodology allows for the time-specific effects in the sense that the ability of the managers to use their discretion over the amount and timing of goodwill
Impairments may change across time with regard to the implementation of the MCCG 2012 (see, for example, Chen & Zhang, 2012).

Previous studies have used similar methodology to examine the impact of the Chinese Code of Corporate Governance, Cadbury Report (UK), and Sarbanes-Oxley Act (US) on accrual earnings management across time (Chen & Zhang, 2012; Cohen et al., 2008; Ghosh et al., 2010; Peasnell et al., 2000). Based on the discussions, equation (6) below is constructed to compare the association between goodwill impairments and financial factors across the pre- and post-MCCG 2012 regimes:

$$IMPAIR_{it} = \beta_0 + \beta_1 CODE_{it} + \beta_2 BVTM_{it} + \beta_3 BVTM_{it} \times CODE + \beta_5 RETURN_{it} \times CODE + \beta_6 \Delta SALES_{it} + \beta_7 \Delta SALES_{it} \times CODE + \beta_8 ROA_{it} + \beta_9 ROA_{it} \times CODE + \beta_{10} \Delta OCF_{it} + \beta_{11} \Delta OCF_{it} \times CODE + \beta_{12} DEBT RATIO_{it} + \beta_{13} BATH_{it} + \beta_{14} SMOOTH_{it} + \beta_{15} \Delta MGMT_{it} + \beta_{16} CEO T ENURE_{it} + \beta_{17} GWA_{it} + \beta_{18} SEGMENTS_{it} + \beta_{19} ADD_{it} + \beta_{20} SIZE_{it} + \epsilon_{it}$$

(6)

Similar model specification is used to compare the association between goodwill impairments and managerial agency-based motives across the pre- and post-MCCG 2012 regimes in equation (7) as follows:
\[
\text{IMP\text{AIR}}_{it} = \beta_0 + \beta_1 \text{CODE}_{it} + \beta_2 \text{BVTM}_{it} + \beta_3 \text{RETURN}_{it} + \beta_4 \Delta \text{SALES}_{it} + \beta_5 \text{ROA}_{it} + \\
\beta_6 \Delta \text{OCF}_{it} + \beta_7 \text{DEBTRATIO}_{it} + \beta_8 \text{DEBTRATIO}_{it} \times \text{CODE} + \\
\beta_9 \text{BATH}_{it} + \beta_{10} \text{BATH}_{it} \times \text{CODE} + \beta_{11} \text{SMOOTH}_{it} + \beta_{12} \text{SMOOTH}_{it} \times \\
\text{CODE} + \beta_{13} \Delta \text{MGMT}_{it} + \beta_{14} \Delta \text{MGMT}_{it} \times \text{CODE} + \beta_{15} \text{CEOTENURE}_{it} + \\
\beta_{16} \text{CEOTENURE}_{it} \times \text{CODE} + \beta_{17} \text{GWA}_{it} + \beta_{18} \text{SEGMENTS}_{it} + \\
\beta_{19} \text{ADD}_{it} + \beta_{20} \text{SIZE}_{it} + \epsilon_{it}
\]
(7)

5.1.3 Study Period and Data Sources

The sample of this study was drawn from all firms listed on Bursa Malaysia during the sample period from 2010 to 2014. To compare the determinants of goodwill impairment across the pre- and post-MCCG 2012 regimes, this study specifies two sub-periods that capture the pre- and post-MCCG 2012 regimes. The MCCG 2012 was issued by Securities Commission on March 2012 and took effect on 31 December 2012. Therefore, given that the sample period covers (2010 to 2014), the entire year 2012 is excluded from the regression analyses to obtain equal distributions of the two sub-periods and to ensure that firms in post-MCCG 2012 period were fully aware with the new regulatory reforms. As a result, the pre-MCCG 2012 regime covers a two-year period (2010 to 2011) and the post-MCCG 2012 regime covers a two-year period (2013 to 2014).

The data used in this study were collected from two main sources. First, Thomson Datastream was employed to obtain stock prices and financial statement data such as sales, operating cash flows, and earnings. Second, data on corporate governance and ownership structure were hand collected from the firms’ annual reports.
5.1.4 Sample Selection

Table 5.1 below summarizes the sample selection process. The study initially identified 4,651 firm-year observations. A detailed review of these observations showed that only 2,268 have positive goodwill balances. Of these 2,268 observations, many were removed for the following reasons: (1) observations operating in a unique regulatory environment such as those falling in the financial industries (103 firm-year observations) or infrastructure project companies (IPCs) (7 firm-year observations); (2) observations with insufficient data to obtain CEOs tenure and CEOs change (257 observations); (3) observations with insufficient/missing data on annual reports or market capitalization (104 observations); and (3) observations with negative book value of equity (11 firm-year observations). Based on these frequently used filters, the final sample consisted of 1,786 firm-years observations, comprised of 408 write-off (approximately 22.84% of sample) and 1,378 non-write-off observations (approximately 77.16% of sample).

Table 5.2 below presents various industry classifications for the samples firms as defined by Bursa Malaysia. The table shows that the distribution of firms per industry was fairly uneven, with firms having goodwill concentrated in trading and services (28.44%), and industrial products (26.32%). This was followed by those belonging to the customer products (14.28%), property development (10.19%), technology (10.08%), construction (5.43%), and plantation (5.26%).

1 Observations with a negative book value of equity have been excluded from the sample because they are likely to be facing abnormal situations that may impede the inferential quality of the empirical tests (Ahmed, Morton, & Schaefer, 2000).
### Table 5.1
Sample selection process

<table>
<thead>
<tr>
<th>Selection criteria</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>Firm-year observations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All firms listed on the Main and ACE markets</strong></td>
<td>957</td>
<td>941</td>
<td>921</td>
<td>911</td>
<td>921</td>
<td>4,651</td>
</tr>
<tr>
<td>Less observations that do not have positive goodwill balances or impairment charges</td>
<td>(492)</td>
<td>(475)</td>
<td>(463)</td>
<td>(462)</td>
<td>(491)</td>
<td>(2,383)</td>
</tr>
<tr>
<td><strong>Observations selected</strong></td>
<td>465</td>
<td>466</td>
<td>458</td>
<td>449</td>
<td>430</td>
<td>2,268</td>
</tr>
<tr>
<td>Less observations falling in the financial sector</td>
<td>(21)</td>
<td>(22)</td>
<td>(22)</td>
<td>(20)</td>
<td>(18)</td>
<td>(103)</td>
</tr>
<tr>
<td>Less observations belonging to the infrastructure project companies (IPCs)</td>
<td>(2)</td>
<td>(2)</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
<td>(7)</td>
</tr>
<tr>
<td>Less observations with incomplete data to calculate CEOs tenure, and changes</td>
<td>(50)</td>
<td>(48)</td>
<td>(56)</td>
<td>(51)</td>
<td>(52)</td>
<td>(257)</td>
</tr>
<tr>
<td>Less observations with insufficient/missing data</td>
<td>(28)</td>
<td>(23)</td>
<td>(19)</td>
<td>(19)</td>
<td>(15)</td>
<td>(104)</td>
</tr>
<tr>
<td>Less observations with negative book value of equity</td>
<td>(0)</td>
<td>(2)</td>
<td>(5)</td>
<td>(2)</td>
<td>(2)</td>
<td>(11)</td>
</tr>
<tr>
<td><strong>Final sample</strong></td>
<td>364</td>
<td>369</td>
<td>355</td>
<td>356</td>
<td>342</td>
<td>1,786</td>
</tr>
<tr>
<td>Goodwill impairers</td>
<td>84</td>
<td>93</td>
<td>81</td>
<td>75</td>
<td>75</td>
<td>408</td>
</tr>
<tr>
<td>Non-goodwill impairers</td>
<td>280</td>
<td>276</td>
<td>274</td>
<td>281</td>
<td>267</td>
<td>1,378</td>
</tr>
</tbody>
</table>
Table 5.2
Sample composition by industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Total sample</th>
<th>% of total sample</th>
<th>Impairment firms</th>
<th>% of impairer firms</th>
<th>Non-impairment firms</th>
<th>% of non-impairer firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>97</td>
<td>5.43</td>
<td>26</td>
<td>6.37</td>
<td>71</td>
<td>5.15</td>
</tr>
<tr>
<td>Customer Products</td>
<td>255</td>
<td>14.28</td>
<td>64</td>
<td>15.69</td>
<td>191</td>
<td>13.86</td>
</tr>
<tr>
<td>Industrial Products</td>
<td>470</td>
<td>26.32</td>
<td>82</td>
<td>20.10</td>
<td>388</td>
<td>28.16</td>
</tr>
<tr>
<td>Plantation</td>
<td>94</td>
<td>5.26</td>
<td>15</td>
<td>3.68</td>
<td>79</td>
<td>5.73</td>
</tr>
<tr>
<td>Property Development</td>
<td>182</td>
<td>10.19</td>
<td>57</td>
<td>13.97</td>
<td>125</td>
<td>9.07</td>
</tr>
<tr>
<td>Technology</td>
<td>180</td>
<td>10.08</td>
<td>49</td>
<td>12.01</td>
<td>131</td>
<td>9.51</td>
</tr>
<tr>
<td>Trading and Services</td>
<td>508</td>
<td>28.44</td>
<td>115</td>
<td>28.19</td>
<td>393</td>
<td>28.52</td>
</tr>
<tr>
<td>Total</td>
<td>1,786</td>
<td>100.00%</td>
<td>408</td>
<td>100.00%</td>
<td>1,378</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Similarly, trading and services represented the highest percentage of the goodwill impairment firms (28.19%), followed by the industrial products (20.10), customer products (15.69), property development (13.97%), technology (12.01%), construction (6.37%), and plantation (3.68%). Likewise, it is obvious from the table that goodwill non-impairment firms have fairly similar industry compositions to those of goodwill impairment firms. Specifically, the three industries with the largest percentage in non-impairment sample were trading and services (28.52%), industrial products (28.16%), and customer products (13.86%). Appendix B provides the list of goodwill firms included in the final sample of the study.

5.2 Summary
This chapter presented the methodology employed to answer the research questions. It included models specifications, variable measurement, study period, data sources, and sample selection processes. The next chapter presents the results and discussions related to value relevance of study.
CHAPTER SIX
RESULTS AND DISCUSSIONS RELATED TO THE VALUE RELEVANCE STUDY

6.0 Overview of the Chapter

This chapter reports the findings of the value relevance study. It comprises six important sections. First, the descriptive statistics and univariate analysis are presented and discussed in Section 6.1. This is followed by analysis used to develop corporate governance factors in Section 6.2. The chapter proceeds with model specifications and diagnostics in Section 6.3. The results of hypotheses testing are reported in Section 6.4. Section 6.5 discusses the results of value relevance study. Finally, Section 6.6 presents the summary of the chapter.

6.1 Descriptive Statistics and Univariate Analysis

Table 6.1 below presents summary statistics of the sample, as well as the results of the difference in means between the impairment firms and non-impairment firms for each continuous variable utilizing a parametric two-tailed t-test, where significant differences are highlighted in bold.
<table>
<thead>
<tr>
<th></th>
<th>Max</th>
<th>Min</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Panel A: Descriptive statistics on financial statement and market variables**

**Panel B: Descriptive statistics on continuous (growth) variables**

**Dummy variables**

**Continuous variables**

Table 6.1
goodwill-impairment loss divided by number of shares outstanding; BIND is firm $i$'s proportion of outside independent members on the board; BOARDSIZE is firm $i$'s number of members on the board of director; MEETING is firm $i$'s number of meetings held by the board during the financial year; SEPCHAIR is a dichotomous variable equal to 1 if the roles of chairman and CEO are separate, and 0 otherwise; ACIND is firm $i$'s percentage of independent non-executive directors on audit committee; ACSIZE is firm $i$'s number of members on the audit committee; ACMEETING is firm $i$'s number of audit committee meetings per year; ACEXPERTISE is firm $i$'s percentage of members on the audit committee with sophisticated accounting expertise; BIG4 is a dummy variable equal to one if the firm $i$'s is audited by one of the international audit firms (KPMG, Deloitte, Ernst & Young, PricewaterhouseCoopers), and zero otherwise; IAF is a dummy variable equal to 1 if the firm $i$'s has in-house internal audit function, zero otherwise; EXEOWN is firm $i$'s total percentage of direct and indirect shares owned by executive directors' from total shares issued; NONEXEOWN is firm $i$'s total percentage of direct and indirect shares owned by non-executive directors' from total shares issued; INSTITUTIONAL is firm $i$'s proportion of shares held by institutional shareholders from total shares issued. They are the Permodalan Nasional Bhd “Berhad” (PNB), Pertubuhan Keselamatan Sosial (PERKESO), Employees Provident Fund (EPF), Kumpulan Wang Persaraan (Diperbadankan), Lembaga Tabung Haji (LTH), Lembaga Tabung Angkatan Tentera (LTAT), and Khazanah Nasional Berhad (KNB).

2. A parametric t-tests is performed to compare the difference in means between impairment firms and non-impairment firms.

3. In this table, figures in bold corresponded with ***, ** and * denote statistical significance in means and median difference between the two subsamples at the 1%, 5% and 10% level, respectively.
Panel A of Table 6.1 above shows summary statistics for the accounting amounts and market variables. As expected, impairment firms exhibited poorer accrual and market-related performance than non-impairment ones. Specifically, the descriptive statistics suggested that impairment firms display significantly lower means for market value per share (MVE) and pre-tax earnings per share (EARNINGS) than non-impairment firms. The mean and median of market value per share (MVE) for impairment firms were RM1.50 and RM0.65 respectively, while the mean and median for non-impairment firms were RM2.22 and RM0.86 respectively. Similarly, impairment firms reported mean and median pre-tax earnings per share (EARNINGS) of RM0.13 and RM0.06 respectively, whereas non-impairment firms reported mean and median pre-tax earnings of RM0.17 and RM0.09 respectively per share.

Furthermore, the median book value of equity per share (BVE) was lower for impairment firms relative to non-impairment firms. For impairment firms, the mean and median of book value of equity per share (BVE) were RM1.33 and RM0.86 respectively while the mean and median for non-impairment firms were RM1.43 and RM1.02 respectively. This suggests that the amount of residual available for common shareholders is less for impairment firms than non-impairment firms.

In addition, the figures showed that there is a significant difference in the mean existed between the two subsamples with respect to the amount of goodwill capitalised in their financial statements. The mean and median of goodwill (GWILL) for impairment firms were RM0.13 and RM (0.03) respectively versus RM0.09 and RM0.03 respectively for
non-impairment firms. This implies that the relative amount of goodwill that is exposed to impairment review is greater for impairment firms relative to non-impairment firms.

With respect to goodwill impairment per share (IMPAIR), the mean and median values of this variable were RM0.02 and RM0.003 respectively. Further analysis revealed that the mean value of goodwill impairment per share (IMPAIR) represents 16.15% of average earnings per share before impairment (EARNINGS). This indicates that these discretionary charges negatively affected reported income of impairment firms.

The minimum value of book value per share (BVE) after extracting goodwill for the full sample was RM-0.34. Prior to adjusting this variable for goodwill, none of the sample firms had a negative book value of equity (BVE). The minimum value of goodwill per share (GWILL) and impairment per share (IMPAIR) were both zero. The former suggests that goodwill has been fully expensed during the year, while the latter indicates that the magnitude of impairment is in some cases is not significant and close to zero.

Panel B of Table 6.1 above shows the descriptive statistics of the corporate governance variables. The mean and median percentage of outside directors (BIND) for impairment firms were 33% and 33% respectively, whereas the mean and median percentage for non-impairment firms were 32% and 33% respectively. These figures suggest that the firms adhere to the recommendation of MCCG, which stipulates at least one-third of the board directors should comprise independent directors (Hashim & Devi, 2008a).
Notably, the mean and median percentages of outside directors in this study were lower than those found in Abdullah et al. (2010), Hashim and Devi (2008), and Mohamad-Nor et al. (2010). The difference in the descriptive statistics for board independence may be due to different measurements used. In this current study, an independent director was defined as a “director who is independent of management and free from any business or other relationship which could interfere with the exercise of independent judgment or the ability to act in the best interests of an applicant or a listed issuer” (Bursa Malaysia, 2013). Thus, this definition excluded those who had any economic interests in the firms and have relationships that are likely to impair their independence.

Board size (BOARDSIZE) was similar for both the impairment and non-impairment firms. The mean and median of board size for impairment firms were 7.44 and 7.00 directors respectively versus 7.28 and 7.00 directors for non-impairment firms respectively. Board size for the full sample ranged from a minimum value of four directors to a maximum of fifteen directors.

In terms of the frequency of board meetings, the minimum and maximum meeting frequency ranges were 2.0 and 27 times per year respectively for full sample. Further, the mean and median values of board meeting (MEETING) for impairment firms were 5.81 and 5.00 times yearly respectively, compared with 5.46 and 5.00 times yearly respectively for non-impairment firms. These figures showed that the mean board

---

1 Before excluding directors who had economic interests in the firms, the mean and median percentage of independent directors for the full sample were 47% and 43% respectively.

2 During the financial year ended 31 December 2014, the board of directors of Bumi Armada Berhad was met 27 times.
meeting frequency was slightly higher for impairment firms compared to non-impairment firms, suggesting that board activity increases if firms are involved in goodwill impairments.

The mean and median proportions of independent non-executive directors on audit committee (ACIND) for impairment were 64% and 67%, whereas the mean and median for non-impairment firms were 62% and 67% respectively. The minimum value of this variable was zero, and the maximum was one. This suggests that some firms in Malaysia have poor corporate governance as indicated by lack of audit committee independence.

The size of audit committee (ACSIZE) for full sample ranged from 2 to 6 members with no significant differences in the mean between the impairment firms and non-impairment firms. Both subsamples had a mean and median size of audit committee of 3.0 and 3.23 members respectively. These figures suggest that firms in Malaysia comply with the MCCG recommendation of having an audit committee comprising at least three members.

The mean and median audit committee meeting frequency (ACMEETING) were 5.19 and 5.00 respectively for impairment firms, whereas the mean and median for non-impairment firms were 5.01 and 5.00 per year respectively. With respect to audit committee expertise (ACEXPERTISE), the mean and median percentage for impairment firms were 46% and 33% respectively, whilst the mean and median for non-impairment firms were 44% and 33% respectively. This suggests that audit committees in Malaysia
satisfy MCCG recommendations, whereby the Code suggests that at least one should be a member of an accounting association (Abdul Wahab, Gist, & Abdul Majid, 2014).

The mean and median percentage of the managerial ownership (EXEOWN) for impairment firms were 30.96% and 32.53% respectively, compared to 28.24% and 30.00% respectively for non-impairment firms. The figures were significantly higher for impairment firms than non-impairment firms, meaning that impairment firms are associated with a higher level of ownership by executive directors.

Furthermore, the mean and median percentages of non-managerial ownership (NONEXEOWN) for impairment firms were 9.00% and 0.17% respectively versus 8.81% and 0.28% respectively for non-impairment firms. Institutional shareholders held on average 4.30% of the shares outstanding in impairment firms, compared to 4.86% in non-impairment firms.

Some firms did not comply with Bursa Malaysia listing requirements in which a listed issuer must ensure that at least 25% of its total listed shares are in the hands of common shareholders (Bursa Malaysia Securities Berhad, 2013). For example, the total direct and indirect managerial ownership in Y&G Corporation BHD was about 84.23% of shares outstanding during financial year 2011.

Regarding the dummy variable (SEPCHAIR), summary statistics revealed that 61% of impairment firms preferred to separate the roles of chairman of the board and CEO compared to 60% for non-impairment firms. Although MCCG 2012 stipulates clearly
that different persons must hold the position of chairman and CEO. These results show that about 39.7% of sample firms combined the roles of chairman and CEO.

Interestingly, impairment firms had a lower presence of Big 4 auditors (BIG4) and in-house internal audit function (IAF) relative to non-impairment firms. The mean percentage of impairment firms whose financial statements were audited by Big 4 auditors was 43%, whereas the mean percentage for non-impairment firms was 51%. In addition, 44% of impairment firms had an in-house internal audit function compared to 47% for non-impairment firms.

In summary, the descriptive statistics and the univariate results suggest that significant differences in financial amounts and corporate governance practices existed between impairment and non-impairment firms. In terms of financial variables, impairment firms are associated with poor performance, larger magnitude of capitalised goodwill and less amount of book value of equity relative to their non-impairment counterparts. In terms of corporate governance variables, impairment firms had a greater frequency of board and audit committee meetings, a higher percentage of managerial ownership, and more non-Big 4 auditors and outsourced internal audit functions.

6.2 Development of Corporate Governance Factors

The study performs a principal component analysis (PCA) for the 13 corporate governance variables to develop factors and to identify which governance variables are correlated with each factor. These factors are likely to capture various dimensions of corporate governance quality (AbuGhazaleh et al., 2011). In this method, the governance
variables are combined into a smaller number of factors that account for the majority of the variance in the original dataset (Dey, 2008). To ensure the appropriateness of PCA for this study, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was performed, and the result of this statistic was 57.19%, which is above the 50% threshold. This suggests that the individual governance variables are suitable for factoring (Coakes, 2013).

The variable BOARDSIZE was redefined as a dummy variable that equalled one if the board size was between 4 and 9 and zero otherwise (Dey, 2008). This is because the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was very low before using the new definition. In addition, as discussed earlier, a smaller board is more effective in monitoring managerial activities than a larger board (see, for example, Ahmed & Duellman, 2007). As a result, the new definition is deemed more appropriate for this study. The statistics shows that 10.75% of the sample firms had a board size greater than 9 directors.

Consistent with Dey (2008), the next step is to determine how many factors should be retained. To do so, the study utilizes two techniques, namely, the eigenvalue method and the scree plot method. With respect to the former, all factors with an eigenvalue above one are kept for additional analysis. In the scree test, the factors that appear in the visual graph above the break are hypothesized to be suitable for subsequent analysis (Jolliffe, 2002). As shown in Table 6.2 below the initial analysis shows that the first five factors jointly explained about 60.84% of the entire variance in the selected governance
variables. The scree plot in Figure 6.1 below confirms the eigenvalue method and suggests that factors 6 through 13 are unimportant.

Table 6.2

Results for the extraction of component factors

<table>
<thead>
<tr>
<th>Component</th>
<th>Eigenvalue</th>
<th>Proportion</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>2.59492</td>
<td>0.1996</td>
<td>0.1996</td>
</tr>
<tr>
<td>F2</td>
<td>1.82177</td>
<td>0.1401</td>
<td>0.3397</td>
</tr>
<tr>
<td>F3</td>
<td>1.22438</td>
<td>0.0942</td>
<td>0.4339</td>
</tr>
<tr>
<td>F4</td>
<td>1.17328</td>
<td>0.0903</td>
<td>0.5242</td>
</tr>
<tr>
<td>F5</td>
<td>1.09526</td>
<td>0.0843</td>
<td>0.6084</td>
</tr>
</tbody>
</table>

Notes: As clarified later, F1 is firm i's board independence factor; F2 is firm i's board activity factor; F3 is firm i's audit quality factor; F4 is firm i's board monitoring power factor; and F5 is firm i's audit committee expertise factor.

Figure 6.1

Scree graph of eigenvalues after PCA
This study uses varimax orthogonal rotation to generate uncorrelated factors by maximizing the variance of factor loadings through making high loadings higher and low ones lower for each factor (Hamilton, 2012; Tabachnick & Fidell, 2013). Similar to Kanagaretnam et al. (2007), this study requires that each factor has to be associated with governance variables that had a minimum loading of 0.60 in absolute value. Then, in order to facilitate the interpretations of the results, names were given to those factors based on the characteristics of governance attributes associated with the factor.

Table 6.3 below presents the result of rotated (varimax orthogonal rotation) components and factors loading for each variable. The corporate governance variables correlated with factor one (F1) were board independence (BIND) and audit committee independence (ACIND). Therefore, the study named this factor the board independence factor. Factor 2 (F2) was highly correlated with board meeting (MEETING) and audit committee meeting (ACMEETING). Thus, the study named this factor the board activity factor. Similarly, variable Big 4 audit firms (BIG4) exhibited substantial loading on factor 3 (F3). Hence, the study named this factor the audit quality factor.

Factor (F4) was positively correlated with the separation of the roles of CEO and chairman of the board (SEPCHAIR). This factor appears to capture the monitoring effectiveness of the board as indicated by separation of the role CEO and chairman (DUALITY). The study named this factor the board monitoring power factor. Finally, the individual variable audit committee expertise (ACEXPERTISE) was highly correlated with factor (F5). Therefore, the study named this factor as the audit committee expertise factor. The final step under (PCA) is to create factor scores, which are linear
composites, formed by standardizing each variable to zero mean and unit variance, and then weighting with factor score coefficients and summing for each factor (Hamilton, 2012).

Table 6.3

\textit{Rotated (Varimax rotation) components and factors loading}

<table>
<thead>
<tr>
<th>Variables</th>
<th>Board Independence</th>
<th>Board Activity</th>
<th>Audit quality</th>
<th>Monitoring power</th>
<th>Audit committee expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIND</td>
<td>0.9506</td>
<td>0.0699</td>
<td>0.0075</td>
<td>0.0685</td>
<td>-0.0128</td>
</tr>
<tr>
<td>BOARDSIZE</td>
<td>0.0012</td>
<td>-0.1146</td>
<td>-0.4053</td>
<td>0.0731</td>
<td>0.5611</td>
</tr>
<tr>
<td>MEETING</td>
<td>0.0274</td>
<td>0.8530</td>
<td>0.1020</td>
<td>0.1589</td>
<td>-0.0580</td>
</tr>
<tr>
<td>SEPCHAIR</td>
<td>0.0367</td>
<td>0.0644</td>
<td>0.0803</td>
<td>0.8136</td>
<td>-0.0473</td>
</tr>
<tr>
<td>ACIND</td>
<td>0.9414</td>
<td>-0.0002</td>
<td>-0.0025</td>
<td>-0.0357</td>
<td>-0.0027</td>
</tr>
<tr>
<td>ACSIZE</td>
<td>0.0137</td>
<td>0.2245</td>
<td>0.2877</td>
<td>0.1086</td>
<td>-0.5769</td>
</tr>
<tr>
<td>ACMEETING</td>
<td>0.0561</td>
<td>0.8615</td>
<td>-0.0051</td>
<td>-0.0604</td>
<td>-0.0098</td>
</tr>
<tr>
<td>ACEXPERTISE</td>
<td>-0.0201</td>
<td>0.0580</td>
<td>0.2142</td>
<td>-0.0429</td>
<td>\textbf{0.7348}</td>
</tr>
<tr>
<td>BIG4</td>
<td>-0.1191</td>
<td>-0.0089</td>
<td>\textbf{0.7001}</td>
<td>0.1149</td>
<td>0.0142</td>
</tr>
<tr>
<td>IAF</td>
<td>0.0902</td>
<td>0.0706</td>
<td>0.5715</td>
<td>0.0479</td>
<td>-0.1032</td>
</tr>
<tr>
<td>EXEOWN</td>
<td>-0.2208</td>
<td>-0.1671</td>
<td>-0.3726</td>
<td>-0.5853</td>
<td>-0.0572</td>
</tr>
<tr>
<td>NONEXEOWN</td>
<td>-0.2667</td>
<td>-0.0578</td>
<td>-0.3190</td>
<td>0.5379</td>
<td>-0.0762</td>
</tr>
<tr>
<td>INSITUTIONAL</td>
<td>0.0906</td>
<td>0.3763</td>
<td>0.5302</td>
<td>0.1209</td>
<td>0.0176</td>
</tr>
</tbody>
</table>

Note:

1. BOARDSIZE is defined as dummy variable that equal to one if the board size is between 4 and 9, zero otherwise (Dey, 2008).
2. All remaining variables are defined in the Table 6.1.

6.3 Model Specification and Diagnostics

Given that the sample of the study contains 1,786 firm-year observations over a five-year period, unbalanced panel data were constructed to analyse the value relevance of goodwill impairment charges. The benefit of such data over cross-sectional data or time-series data is that it can control for unobservable heterogeneity among firms (Palia, 2001). This methodology also contains robust information and allows for an increased
precision in estimation (Hoechle, 2007). Particularly, panel data allows for more powerful tests because it provides more useful data, more variability, less collinearity among variables, more degrees of freedom and more efficiency (Baltagi, 2008).

The study performs Breusch and Pagan (1980) Lagrange multiplier (LM) test to examine the hypothesis that there are no random effects. Based on a significant p-value for (LM) test, the study concluded that the random effects model was more appropriate than classical regression model. Then, Hausman and Taylor (1981) test was employed to determine which panel technique (the Fixed Effect Model or the Random Effect Model) does better for the observed sample data. Based on this test, the fixed effects regression is employed to examine the value relevance of goodwill impairment.

To deal with heteroskedasticity and serial correlation in the panel data set, this study includes time fixed-effects and robust standard errors clustered at the firm level (Beltratti, Spear, & Szabo, 2013; Petersen, 2009). In order to ensure that the regression results are not driven by a few extreme observations, this study Winsorizes all continuous variables at the 1st and 99th percentiles (Filip et al., 2015).

Furthermore, the Pearson correlation coefficients and Variance Inflation Factor (VIF) statistics are provided in Table 6.4 below to inspect the existence of multicollinearity. As shown, none of the correlation coefficients among the explanatory variables is greater than 0.8. The highest pairwise correlation is 0.63 between book value per share (BVE) and pre-tax earnings per share (EARNINGS). However, this correlation does not present a problem because the value is less than 0.8, which according to Studenmund (2005)
requires further investigation. Nevertheless, all of the Variance Inflation Factors (VIF) values are below 10, suggesting the absence of multicollinearity concern in this study (Gujarati & Porter, 2009).
Table 6.4
Pearson correlations between the variables used in the value relevance study

<table>
<thead>
<tr>
<th></th>
<th>BVE</th>
<th>EARNINGS</th>
<th>GWILL</th>
<th>IMPAIR</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
<th>F5</th>
<th>IMPAIR+F1</th>
<th>IMPAIR+F2</th>
<th>IMPAIR+F3</th>
<th>IMPAIR+F4</th>
<th>IMPAIR+F5</th>
<th>VIF statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>BVE</td>
<td>1</td>
<td>0.63***</td>
<td>0.12***</td>
<td>0.02</td>
<td>0.09***</td>
<td>0.01</td>
<td>0.35***</td>
<td>0.07***</td>
<td>0.08***</td>
<td>0.05**</td>
<td>0.05**</td>
<td>0.08***</td>
<td>0.00</td>
<td>0.01</td>
<td>1.77</td>
</tr>
<tr>
<td>EARNINGS</td>
<td>0.63***</td>
<td>1</td>
<td>0.25***</td>
<td>0.00</td>
<td>0.09***</td>
<td>0.01</td>
<td>0.12***</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04*</td>
<td>0.06***</td>
<td>0.05**</td>
<td>0.03</td>
<td>0.02</td>
<td>1.80</td>
</tr>
<tr>
<td>GWILL</td>
<td>0.12***</td>
<td>0.25***</td>
<td>1</td>
<td>0.17***</td>
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<td>0.02</td>
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<td>0.06**</td>
<td>0.07***</td>
<td>0.07***</td>
<td>0.07***</td>
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<td>0.07***</td>
<td>0.07***</td>
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<td>-0.06***</td>
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<td>-0.12***</td>
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<td>-0.12***</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.20</td>
</tr>
</tbody>
</table>

Notes:
1. MVE stands for market value of equity for firm i's per share, which is measured six months after the year-end; BVE represents book value of equity excluding goodwill divided by number of shares outstanding; EARNINGS is firm i's pre-tax earnings, calculated by adding goodwill impairment loss divided by number of shares outstanding; GWILL is firm i's net carrying amount of pre-impairment goodwill divided by number of shares outstanding; IMPAIR is firm i's absolute amount of goodwill-impairment loss divided by number of shares outstanding; F1 is firm i's board independence factor; F2 is firm i's board activity factor; F3 is firm i's audit quality factor; F4 is firm i's board monitoring power factor; F5 is firm i's audit committee expertise factor; IMPAIR+F1 is firm i's interaction term between board independence factor and goodwill impairment; IMPAIR+F2 is firm i's interaction term between board activity factor and goodwill impairment; IMPAIR+F3 is firm i's interaction term between audit committee expertise factor and goodwill impairment. IMPAIR+F4 is firm i's interaction term between board monitoring power factor and goodwill impairment. IMPAIR+F5 is firm i's interaction term between audit committee expertise factor and goodwill impairment.
2. ***, ** and * denote statistical significance at 1, 5, and 10 percent, respectively.
6.4 Multivariate Results

6.4.1 Test of Hypotheses Related to Value Relevance Study

Table 6.5 below shows the results of the fixed-effects panel regressions for the full sample, whereby three models are estimated. Model (1) estimates the value relevance of accounting information as captured in book value and earnings; Model (2) estimates the value relevance of goodwill impairments; and Model (3) estimates the impact of corporate governance mechanisms on the value relevance of goodwill impairments. Table 6.6 below shows that the $R^2$ was 52.82% for Model (3), which is better than the $R^2$ of the baseline regression 51.95%. This suggests that the explanatory power of the Model (3) is improved by incorporating corporate governance factors.

The results for Model (1) revealed that the estimated coefficient on EARNINGS was strongly and significantly associated with MVE ($\beta = 1.333$, $p = 0.000$). On the other hand, the estimated coefficient for BVE was insignificant ($\beta = 0.053$, $p = 0.572$). These results suggest that market participants in Malaysia place more weights on profit and loss accounts than recorded book value when making their equity pricing decisions.
Table 6.5
Fixed-effects panel data analysis for the value relevance study, full sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
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<tr>
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<tr>
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</tr>
<tr>
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<td>0.014***</td>
<td></td>
<td>0.014***</td>
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<td>F1</td>
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<td>0.354</td>
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<td>IMPAIR*F3</td>
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<td>IMPAIR*F5</td>
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<td>0.000***</td>
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<td></td>
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<tr>
<td>R²</td>
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<td>51.36%</td>
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Notes:
1. All variables are defined in the Table 6.4. 2011, 2012, 2013, 2014 represent year dummies.
2. The estimated coefficient are based on robust standard errors (clustered by firm) (M. a. Petersen, 2009).
3. ****, **, and * denote statistical significance at 1, 5, and 10 percent, respectively, whereby significant coefficients are highlighted in bold.
Model (2) provides the results for hypothesis H1, which stated that goodwill impairment losses under MFRS No. 136 are value relevant. The findings showed that the estimated coefficient for IMPAIR was negative and significant ($\beta = -2.957$, $p = 0.003$). Thus hypothesis H1 is supported in this study. Model (2) also showed that the estimated coefficient for GWILL was insignificantly associated with MVE ($\beta = -0.102$, $p = 0.834$), supporting the old view that goodwill has no room in the balance sheet. This suggests the shareholders viewed reported goodwill as not having future economic benefits to incorporate it in their equity valuations.

Model (3) reports the findings for H2, which stated that corporate governance attributes affect the value relevance of goodwill impairment losses under MFRS No. 136. The coefficient on interaction term between IMPAIR $\times$ F1 ($\beta = -0.825$, $p = 0.481$) was insignificant. Nevertheless, the coefficients on the interaction terms between IMPAIR $\times$ F2 ($\beta = 1.830$, $p = 0.038$), IMPAIR $\times$ F3 ($\beta = 1.618$, $p = 0.099$), IMPAIR $\times$ F4 ($\beta = 2.028$, $p = 0.045$), and IMPAIR $\times$ F5 ($\beta = 2.245$, $p = 0.041$) were positive and significant. Therefore, hypothesis H2 is supported.

6.4.2 Robust Analysis

In the previous section, the study reported the results based on all firm-year observations in order to avoid sample selection bias. For robustness check, the study re-estimated the model using only impairment firms as shown in Table 6.6 below. Once again, model (2) shows that the coefficient on IMPAIR was highly significant ($\beta = -3.421$, $p = 0.006$). Therefore, the result is robust as an alternative specification of the regression model.
Table 6.6
**Fixed-effects panel data analysis for the value relevance study, impairment only firms**

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<tr>
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</table>

Notes:

1. All variables are defined in the Table 6.4.2011, 2012, 2013, 2014 represent year dummies.
2. The estimated coefficient are based on robust standard errors (clustered by firm) (M. a. Petersen, 2009).
3. ***, ** and * denote statistical significance at 1, 5, and 10 percent, respectively, whereby significant coefficients are highlighted in bold.
For the interaction terms between goodwill impairments and corporate governance factors, Model (3) showed that the coefficient for the interaction between IMPAIR× F2 was significant (β = 2.480, p = 0.028). Therefore, the results are robust for the alternative model specification. However, the remaining coefficients on the interaction term between IMPAIR× F3 (β = 1.801, p = 0.226), IMPAIR× F4 (β = 1.782, p = 0.236), and IMPAIR× F5, (β = 1.231, p = 0.229) are insignificant, suggesting that the results of Model (3) are sensitive to an alternative model specification. A plausible explanation for the insignificant results was the small sample size used in the regression models, which included only impairment observations.

In the next robustness check, the current study seeks to examine whether there is any influence of firm attributes on the firms' market value. Hence, it included firm size, debt ratio, and return on assets as additional control variables into the empirical models, consistent with Ahmed, Tahat, Burton, and Dunne (2015). Untabulated regression results (available upon request) are qualitatively similar to the findings reported in Table 6.5.

6.5 Discussions of the Results Related to the Value Relevance Study.
There are two main findings from these empirical tests. First, they showed strong evidence that goodwill impairment charges disclosed by Malaysian firms are value relevant to shareholders and provide negative news about firm’s prospects. Second, there is some evidence that corporate governance factors moderate the relationship between impairment charges and firm market values.
The finding that impairment charges are useful to shareholders does not support the argument that extensive reliance on managerial discretion would result in rendering accounting numbers devoid of useful information (Kothari, 2001). Instead, the finding seems to support the standard setters claim that more managerial discretion in the current accounting for goodwill allows managers to disclose relevant information to shareholders (Hamberg & Beisland, 2014).

A comparison of the findings of this study with those of previous research that have examined the value relevance of goodwill impairment shows some inconsistencies. The significant association between goodwill impairment and firm’s market value is consistent with AbuGhazaleh et al. (2012), Lapointe-Antunes et al. (2009), and Xu et al. (2011). Nevertheless, it is inconsistent with the findings of Bens et al. (2011), and Hamberg and Beisland (2014) who suggested that accounting discretion in goodwill impairment are more likely to be driven by the opportunistic behavior of managers.

Next, this study identifies five factors using principal components analysis (PCA) that capture different aspects of corporate governance quality for the selected set of variables. These factors are the board independence, the board activity, the audit quality, the monitoring power, and the audit committee expertise. The study found that the coefficients on the interaction terms between goodwill impairments and the board activity factor, audit quality factor, monitoring power factor, and audit committee expertise factor were positive and significant, indicating that corporate governance moderates the relationship between impairment charges and firm market values. This means that, from
the standpoint of shareholders, effective corporate governance mechanisms dampen the negative news of goodwill impairments.

To facilitate the interpretations of the findings, Ramanna (2008) suggested that goodwill impairments are relevant and convey negative news to shareholders because they are big bath earnings management behavior. Therefore, the significant positive coefficients on the interaction terms between goodwill and corporate governance factors indicate that shareholders perceive that there are reduced opportunities for big bath earnings management behavior in firms with strong corporate governance. This is particularly true since managers of firms with effective corporate governance are less likely to act opportunistically or not to disclose credible information (Kanagaretnam et al., 2007).

An alternative explanation may be that shareholders assessment of impairment charges depends on their perception about the managerial motives and the quality of corporate governance mechanisms (Minnick, 2011). They may regard goodwill impairment decisions as a reflection of managers' incentives to develop a reputation for reliable and transparent financial reporting (Wilson, 1996). Thus, shareholders reward management for providing credible impairment charges as captured by significant positive coefficients on the interaction terms between corporate governance factors and goodwill impairments.

Finally, Hirschey and Richardson (2002) indicated that impairment charges can be seen as bad news to shareholders when decline in the value of goodwill signal permanents trouble is yet to come. Thus, shareholders may view that goodwill impairments recorded
by firms with effective corporate governance mechanisms are deemed as conveying less adverse information about their future earnings prospects. Perhaps, they may regard such impairments as indication of management's action to survive the firm's normal operations, similar to the signals communicated by restructuring programs. Overall, the findings are in line with premise that effective corporate governance improves the credibility of information released by management (Habib & Azim, 2008; Kanagaretnam et al., 2007; Lapointe-Antunes et al., 2009; Minnick, 2011; Song et al., 2010).

For completeness, the study discusses the results for each of the governance factor. Recall that each corporate governance factor represents multiple corporate governance characteristics and names are given to those factors in order to facilitate their interpretation. In terms of the board independence factor, the study did not find a significant impact of this factor on the value relevance of goodwill impairments. The insignificant result indicates that shareholders did not view goodwill impairments disclosed by the firms with greater board independence as providing relevant information about goodwill impairment. This result from standpoint of shareholders does not support the argument that independent directors are effective in mitigating the agency problem and limiting the opportunistic behavior of managements.

Reasons for the insignificant result may be attributed to arguments that independent directors in Malaysia are not indeed independent due to family ties, high power of the controlling shareholders or political influence (Germain et al., 2014; Liew, 2008; Vithiatharan & Gomez, 2014). For example, the extensive presence of family firms
suggests that corporate directors are likely to be either family members or have familial connections. Thus, the independence of corporate directors may be impaired if close family or social ties exist between the directors (Jaggi et al., 2009).

Furthermore, the belief is that excessive management control over the appointment of outside directors creates the problem of boards rubber stamping management decisions (Abdul Rahman & Mohamed Ali, 2006). This argument is supported by the managerial hegemony theory, which indicates that management is likely to select directors who are likely to agree with their decisions rather than to ask difficult questions (Cohen et al., 2008). Aligned with this argument, Jaggi et al. (2009) asserted that the independence of directors in family controlled firms is likely to be compromised. This is because family members will have control over the appointment and re-designation of outside directors. Hence, outside directors are less likely to challenge the wishes of controlling family members.

An alternative explanation is the claim of existence of unprofessional and irresponsible directors who do not have sufficient knowledge about a firm’s affairs (Abdul Rahman & Mohamed Ali, 2006; Liew, 2008). These issues may lead to hampering the effective monitoring of management behavior and financial reporting from the shareholder’s viewpoint. To conclude, the existence of independent members on the board might be simply to meet the requirement of MCCG (Abdullah et al., 2010).
In terms of the board activity factor, the study showed that this factor moderated the relationship between goodwill impairment and the market value of the firm’s equity. This result supports the argument that directors on boards and audit committees who demand more frequent meetings are likely to perform their oversight role diligently and in accordance with owners' best interests (Beasley et al., 2000; Brick & Chidambaran, 2010; Carcello et al., 2002; Krishnan & Visvanathan, 2009; Lin et al., 2009; Schwartz-Ziv & Weisbach, 2013; Vafeas, 1999; Xie et al., 2003). The results, therefore, provide support for the agency theory in that board activity could reduce agency costs and increase the monitoring effectiveness of the board.

Regarding the impact of the audit quality factor on the value relevance of goodwill impairments, results were found to be marginally significant. This finding therefore provides support for agency theory. Audit reporting quality can mitigate the information asymmetries between the conflicting parties and enhance the creditability of accounting information (Becker et al., 1998).

Recall that the board monitoring power factor is related to separating the role of CEO and chairman of the board. Regression results showed that the interaction term between the board monitoring power factor and goodwill impairment was positive and significant. This result from shareholders viewpoint is consistent with agency theory, which claims that separating the role of the CEO and the chairman is essential in improving overall board independence and limiting the power of management from extracting rents at the expense of shareholders (Fama & Jensen, 1983).
Finally, this study documented that the audit committee expertise factor played a role in moderating the association between goodwill impairments and firms’ equity value. The results suggest that shareholders consider firms with a competent audit committee as less likely to report unreliable impairment charges. This finding is in line with the results by Lapointe-Antunes et al. (2009) who documented that shareholders place a higher valuation weight on goodwill impairments disclosed by firms with a competent audit committee. Therefore, the findings of the study support resource dependence theory, which predicts that having more financial experts on the audit committee is beneficial for obtaining a competitive advantage in financial reporting quality (Nelson & Devi, 2013).

6.6 Summary
In this chapter, the study discussed the results of the regression models undertaken to examine the value relevance of goodwill impairments. It also discussed the results of the impact of corporate governance on the value relevance of impairment charges. In brief, the results suggest that the current accounting practice of periodic impairment tests allows managers to provide relevant information to shareholders. Moreover, it provides some evidence that, in the view of investors, effective corporate governance mechanisms mitigate the bad news of goodwill impairments. They may view that reduced opportunities exist for big bath behavior in firms with strong corporate governance mechanisms. This finding is consistent with the argument that corporate governance can improve the credibility of accounting information. The next chapter provides the results of regression models examining the determinants of goodwill impairments.
CHAPTER SEVEN

RESULTS AND DISCUSSIONS RELATED TO THE DETERMINANTS STUDY

7.0 Overview of the Chapter

This chapter reports the empirical results of the determinants study. It has seven sections. The descriptive statistics is reported in Section 7.1. This is followed by discussion of the model specifications and diagnostics in Section 7.2. The chapter then shows the empirical results of regression models relating to the determinants of goodwill impairments in Section 7.3. The empirical results are discussed in Section 7.4. Further, the empirical results of regression models comparing the determinants of goodwill impairments across the pre- and the post-MCCG 2012 regimes are presented in Section 7.5. The chapter proceeds with discussions of the empirical tests in Section 7.6. Finally, Section 7.7 presents the summary of the chapter.

7.1 Descriptive Statistics and Univariate Analysis

Table 7.1 below reports the descriptive statistics for the variables employed in the regression models examining the determinants of the amount of goodwill impairment charges. It also presents the results of mean differences between impairment-firms and non-impairment firms for each continuous variable utilizing two-sample t-tests, where significant differences are highlighted in bold.
Table 7.1
Descriptive statistic for variables used in the determinants study

<table>
<thead>
<tr>
<th>Variables</th>
<th>All sample (n = 1786)</th>
<th>Impairment Firms (n = 408)</th>
<th>Non-Impairment Firms (n = 1378)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td>SD</td>
</tr>
<tr>
<td><strong>Continuous variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGMPAIR (RM000)</td>
<td>1932.226</td>
<td>0.000</td>
<td>13349.18</td>
</tr>
<tr>
<td>IMPAIR</td>
<td>0.005</td>
<td>0.000</td>
<td>0.061</td>
</tr>
<tr>
<td>BVTM</td>
<td>1.487</td>
<td>1.241</td>
<td>1.076</td>
</tr>
<tr>
<td>ΔOCF</td>
<td>0.001</td>
<td>0.001</td>
<td>0.124</td>
</tr>
<tr>
<td>RETURN</td>
<td>0.016</td>
<td>0.012</td>
<td>0.598</td>
</tr>
<tr>
<td>ΔSALES</td>
<td>0.077</td>
<td>0.304</td>
<td>0.427</td>
</tr>
<tr>
<td>ROA</td>
<td>0.048</td>
<td>0.046</td>
<td>0.129</td>
</tr>
<tr>
<td>DEBTRATIO</td>
<td>0.215</td>
<td>0.201</td>
<td>0.162</td>
</tr>
<tr>
<td>BATH</td>
<td>-0.016</td>
<td>0.000</td>
<td>0.050</td>
</tr>
<tr>
<td>SMOOTH</td>
<td>0.027</td>
<td>0.000</td>
<td>0.166</td>
</tr>
<tr>
<td>GWA</td>
<td>0.048</td>
<td>0.015</td>
<td>0.085</td>
</tr>
<tr>
<td>SEGMENTS</td>
<td>3.190</td>
<td>3.000</td>
<td>1.491</td>
</tr>
<tr>
<td>SIZE (RM000)</td>
<td>2237717</td>
<td>370187</td>
<td>6645440</td>
</tr>
<tr>
<td><strong>Dummy variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔMGMT</td>
<td>0.160</td>
<td>0.000</td>
<td>0.364</td>
</tr>
<tr>
<td>ADD</td>
<td>0.220</td>
<td>0.000</td>
<td>0.414</td>
</tr>
</tbody>
</table>

Notes:
1. IMPAIR is firm $i$’s reported amounts of goodwill impairments (expressed as a positive number) divided by beginning of period total assets, zero otherwise; BVTM is firm $i$’s book value of equity for; adjusted for goodwill impairment) deflated by market value of equity at the end of the year; RETURN is firm $i$’s cumulative abnormal returns (CARs) over the year, whereby market model (MM) is used to obtain abnormal returns; ASALES is firm $i$’s change in sales from current year to prior year, deflated by lagged total assets; ROA is firm $i$’s pre-tax earnings at the end of prior year deflated by total assets; $\Delta$OCF is firm $i$’s change in operating cash flow from prior year to current year divided by lagged total asset; DEBTRATIO is firm $i$’s debt ratio, measured as total debt divided by beginning of period total assets; BATH is firm $i$’s change in pre-impairment earnings from prior year to current year, divided by beginning of period total assets when this change is below the median of nonzero negative values, zero otherwise; SMOOTH is firm $i$’s change in pre-impairment earnings from prior year to current year, divided by beginning of period total assets when this change is above the median of nonzero positive values, zero otherwise; $\Delta$MGMT is indicator variable equal to one if the firm $i$’s faces a change in CEOs in current or prior financial year, and zero otherwise; CEOTENURE is the number of years that the firm’s CEO has in charge with the position; GWA is firm $i$’s opening carrying amount of goodwill for the firm $i$’s divided by beginning of period total assets; SEGMENTS is firm $i$’s number of the business segments; ADD is an indicator variable equal to one for the firm $i$’s, if there is newly acquired goodwill due to acquisitions activity, zero otherwise; SIZE is the natural logarithm of total assets at the end of the prior year.

2. A parametric t-tests is performed to compare the difference in means between impairment firms and non-impairment firms.

3. In this table, figures in bold corresponded with ***,**, and * denote statistical significance in means and median difference between the two subsamples at the 1%, 5% and 10% level, respectively.
As shown in Table 7.1 above, the average amount (MGMPAIR) of goodwill impairments recognized by the full sample firms was RM1,932,226. The average amount of goodwill impairment recognized by the impairment firms was RM8,458,223. This amount represented, on average, RM 2.20% of a firm's total assets at the beginning of the financial year.

In line with previous studies, impairment firms appeared to be less profitable than non-impairment ones in terms of significant higher means for book-to-market value (BVTM), and significantly lower medians for change in sales (ΔSALES). The mean and median of book-to-market value (BVTM) for impairment firms were 1.610 and 1.329 respectively, whilst the mean and median for non-impairment firms were 1.451 and 1.223 respectively. The mean and median change in sales (ΔSALES) for impairment firms were 7.20% and 2.30% respectively, whereas mean and median for non-impairment firms were 7.80% and 3.20% respectively. Impairment firms perform poorer than non-impairment firms as measured by return on assets (ROA), where the mean and median for impairment firms were 1.90% and 3.00% respectively while the mean and median values for non-impairment firms were 5.60% and 5.10% respectively.

The mean and median of change in operating cash flows (ΔOCF) were -0.40% and 0.10% respectively for impairment firms, whilst the mean and median of operating cash flows (ΔOCF) for non-impairment firms were 0.30% and 0.20% respectively and the differences were statistically insignificant. Contrary to expectations, the mean and median of stock performance (RETURN) for impairment firms were 4.80% and 2.80%
respectively. On the other hand, the mean and median of stock performance (RETURN) for non-impairment firms were 0.60% and 0.90% respectively. Nevertheless, the difference in the mean between the two subsamples was insignificant.

Regarding managerial agency-based motives, the descriptive statistics revealed that impairment firms have significantly higher means and medians of debt ratio (DEBTRATIO), higher unexpected negative earnings as reflected in lower means and medians for big bath behavior (BATH), and stronger unexpected positive earnings as reflected by higher medians for income smoothing (SMOOTH). The mean and median of debt ratio (DEBTRATIO) for impairment firms were 23.40% and 21.90% respectively whilst the mean and median for non-impairment firms were 20.90% and 19.90% respectively. Similarly, the means of big bath behavior (BATH) were -2.20% and -1.40% for impairment and non-impairment firms respectively. Income smoothing (SMOOTH) appears to be higher on average for impairment firms, whereby its value was 4.30% compared to 2.30% for non-impairment firms, although the mean difference was not statistically significant.

Regarding the dummy variable (AMGMT), impairment firms exhibited more incidents of CEO change than non-impairment firms. On average, 19.90% of impairment firms experienced CEO change during current and prior years, whereas the value for non-impairment firms was 14.50%, providing a preliminary indicator that goodwill impairments are more probable to occur if recent changes have been made in the CEO. Moreover, a difference between impairment and non-impairment firms was revealed in a
significantly shorter median for CEOs tenure as indicated by significantly lower median for (CEOTENURE). Particularly, the mean and median lengths of CEOs tenure (CEOTENURE) for impairment firms were 8.659 and 6.340 years respectively whereas the mean and median for non-impairment firms were 8.984 and 7.547 years respectively.

In term of control variables, the mean and median comparisons revealed that the carrying amount of goodwill at the beginning of the financial year was greater in impairment-firms relative to non-impairment firms as measured by a significant higher mean difference in the relative size of goodwill (GWA). The mean and median relative size of goodwill (GWA) for impairment firms were 5.70% and 2.00% respectively compared to 4.60% and 1.40% respectively for non-impairment firms. Furthermore, impairment firms had a larger number of business segment (SEGMENTS). Particularly, on average, the number of business segment (SEGMENTS) for impairment firms was 3.434, whilst its average for non-impairment firms was 3.123. Additionally, no significant difference in total assets (SIZE) existed between impairment and non-impairment firms. The mean of total assets (SIZE) was RM2,304,400,000 and RM2,217,973,000 for impairment and non-impairment firms respectively. Finally, with respect to dummy variable addition to goodwill (ADD), on average, 34.3% of impairment firms experienced an addition to goodwill (ADD) compared to 18.2% for non-impairment firms. This suggests that impairment firms were more involved in acquisition activities that generate goodwill.

In summary, the descriptive statistics and the univariate results indicated that the performance of impairment firms appeared to be lower than non-impairment firms with
respect to book-to-market ratios, change in sales, and return on assets. Furthermore, consistent with the expectations, impairment firms have larger debt ratio, higher proportion of unexpected negative (positive) change in earnings, and greater amount of goodwill relative to non-impairment firms. Lastly, impairment firms experienced more CEO changes and additions to goodwill arising from acquisition activities.

7.2 Model Specification and Diagnostics

Given that the dependent variable in this study is censored at zero, the Tobit model was employed to examine the factors influencing goodwill impairments. As discussed earlier, panel data was deemed appropriate for this study because they give a “large number of data points, increasing the degrees of freedom and reducing the collinearity among explanatory variables—hence improving the efficiency of econometric estimates” (Hsiao, 2003, p. 3).

To address the concern that outliers might drive the regression results, all continuous variables were Winsorized at the 1st and 99th percentiles of their distributions (Beatty & Weber, 2006). For the autocorrelation, the Wooldridge test was performed to examine the null hypothesis of no serial correlation (Drukker, 2003). As the p-value of Wooldridge test was 0.7276, the conclusion was that serial correlation problems were absent in this study. To address the heteroskedasticity in the regression models, the majority of financial variables were divided by total asset at the end of the year (AbuGhazaleh et al., 2011; Lapointe-Antunes et al., 2008; Riedl, 2004).
Finally, the Pearson correlation coefficients for the independent variables and their variance inflation factor statistics are presented in Table 7.2 below in order to diagnose multicollinearity. As shown in Table 7.2, none of the correlations represents a serious problem. The highest pair-wise correlation was -0.444 between CEOTENURE and ACEO, implying that the threat of bias due to high correlations between independent variables was negligible (Studenmund, 2005). Furthermore, the Variance Inflation Factors (VIF) scores do not exceed 10, indicating the absence of multicollinearity problems (Gujarati & Porter, 2009).
Table 7.2

<table>
<thead>
<tr>
<th>VIF statistic</th>
<th>SIZE</th>
<th>ADD</th>
<th>SEGMENTS</th>
<th>GWA</th>
<th>CEOTENUR</th>
<th>ΔMGM</th>
<th>BATH</th>
<th>DEBT_RATIO</th>
<th>ROA</th>
<th>AOCF</th>
<th>ASALES</th>
<th>RETURN</th>
<th>BVTM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.48</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>1.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tr>
<tr>
<td>1.04</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1.03</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
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<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tr>
<tr>
<td>1.02</td>
<td>0.00</td>
<td>0.00</td>
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<td>1.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
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<tr>
<td>1.01</td>
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<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Notes:  
1. All variables are defined in Table 7.1.  
2. ** and * denote statistical significance at 1% and 10% level, respectively.
7.3 Multivariate Results

7.3.1 Test of Hypotheses Related to Determinants of Goodwill Impairments

Table 7.3 reports the results of the Tobit regression examining the factors influencing the amount of goodwill impairment charges for a sample comprising 1,786 firm-year observations between 2010 and 2014. The Wald-chi-square was significant at the 1% level, suggesting that the overall model exhibited a good fit for the observed sample data.1

Table 7.3
Panel data Tobit regression analysis of the determinants of goodwill impairments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prediction</th>
<th>Coefficient</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td></td>
<td>-0.024</td>
<td>0.034</td>
</tr>
<tr>
<td>Financial factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVTM</td>
<td>+</td>
<td>0.002</td>
<td>0.046**</td>
</tr>
<tr>
<td>RETURN</td>
<td>-</td>
<td>0.001</td>
<td>0.970</td>
</tr>
<tr>
<td>∆SALES</td>
<td>-</td>
<td>-0.005</td>
<td>0.260</td>
</tr>
<tr>
<td>ROA</td>
<td>-</td>
<td>-0.072</td>
<td>0.000***</td>
</tr>
<tr>
<td>∆OCF</td>
<td>-</td>
<td>-0.005</td>
<td>0.603</td>
</tr>
<tr>
<td>Managerial incentives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBTRATIO</td>
<td>-</td>
<td>0.002</td>
<td>0.832</td>
</tr>
<tr>
<td>BATH</td>
<td>-</td>
<td>-0.125</td>
<td>0.000***</td>
</tr>
<tr>
<td>SMOOTH</td>
<td>+</td>
<td>0.032</td>
<td>0.140</td>
</tr>
<tr>
<td>∆MGMT</td>
<td>+</td>
<td>0.006</td>
<td>0.057*</td>
</tr>
<tr>
<td>CEOSENSE</td>
<td>-</td>
<td>0.001</td>
<td>0.504</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GWA</td>
<td>+</td>
<td>0.087</td>
<td>0.000***</td>
</tr>
<tr>
<td>SEGMENTS</td>
<td>?</td>
<td>0.002</td>
<td>0.030**</td>
</tr>
<tr>
<td>ADD</td>
<td>+</td>
<td>0.009</td>
<td>0.000***</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>-0.002</td>
<td>0.099*</td>
</tr>
<tr>
<td>Wald-Chi-Square</td>
<td></td>
<td>131.35**</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>1786</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. All variables are defined in the Table 7.1.
2. ***, ** and * denotes statistical significance at 1, 5, and 10 percent, respectively, whereby significant coefficients are highlighted in bold.

1 In Panel data Tobit regression analysis, Stata 13 did not display the Pseudo R2.
Regarding the financial factors, hypothesis H3a predicted that the book-to-market value was positively associated with goodwill impairments. The significant positive coefficient ($\beta = 0.002$, $p = 0.046$) on BVTM supported this hypothesis. Hypothesis H3b predicted that the likelihood of disclosing goodwill impairments would be greater in firms with poor stock performance. The results showed that the estimated coefficient on RETURN was insignificant ($\beta = 0.001$, $p = 0.970$). Thus, hypothesis H3b was not validated in this study. Hypothesis H3c predicted that firms with a negative change in sales were more prone to undertake goodwill impairments. The coefficient of the $\Delta$SALES was negative and consistent with the predicted signs, albeit that the association of $\Delta$SALES with goodwill impairment charges was insignificant ($\beta = -0.005$, $p = 0.260$). Hence, hypothesis H3c was not supported.

Hypothesis H3d predicted that the poorer the return on assets of a firm, the greater the likelihood of recording goodwill impairments. Consistent with H3d, the estimated coefficient of ROA was significantly associated with goodwill impairments as predicted ($\beta = -0.072$, $p = 0.000$). Therefore, hypothesis H3d was supported. Finally, hypothesis H3e predicted that a change in operating cash flows $\Delta$OCF would influence the choice of managers when deciding when and how much to impair goodwill. The coefficient on $\Delta$OCF was negative and insignificant ($\beta = -0.005$, $p = 0.603$). Hence, hypothesis H3e was not substantiated.

In terms of managerial agency-based motives, hypothesis H4a predicted that firms with a larger debt ratio were less likely to recognize goodwill impairments. The insignificant
coefficient ($\beta = 0.002$, $p = 0.832$) on DEBTRATIO did not validate this hypothesis. Similarly, hypothesis H4b posited that goodwill impairments would be associated with big bath earnings management. The evidence indicated that the estimated coefficient for BATH ($\beta = -0.125$, $p = 0.000$) was significant. Therefore, hypothesis H4b was supported.

Hypothesis H4c stated that goodwill impairments would be associated with income smoothing. The coefficient for SMOOTH was insignificant ($\beta = 0.032$, $p = 0.140$). Hence, hypothesis H4c was not validated. Hypothesis H4d predicted a positive association between CEO changes and goodwill impairments. The coefficient of the AMGMT was positive and marginally significant ($\beta = 0.006$, $p = 0.057$). Consequently, H4d was supported in this study. Lastly, hypothesis H4e predicted that goodwill impairments would be negatively associated with CEO tenure. Inconsistent with H4e, the results showed that the estimated coefficient on CEOTENURE was not significant ($\beta = 0.001$, $p = 0.504$). Therefore, H4e was not substantiated.

For the control variables, the evidence indicated that the estimated coefficients for GWA ($\beta = 0.087$, $p = 0.000$), SEGMENTS ($\beta = 0.002$, $p = 0.030$), and ADD ($\beta = 0.009$, $p = 0.000$) were positive and significant. Finally, the empirical results showed that the estimated coefficient on SIZE was negative and marginally significant ($\beta = -0.002$, $p = 0.099$).

### 7.3.2 Robustness Tests

One concern with respect to the regression results was that the variable BATH might capture the economic impairment of goodwill rather than the managerial agency-based
motives to distort earnings. Specifically, because the credibility of the study results relied on the extent to which the regression model controls for financial factors (Wilson, 1996), possibilities exist that BATH captures a residual economic effect (Riedl, 2004). Another concern with the regression model estimated above is that the variable ΔCEO omits significant information about other important personnel such as the chairman of the board. For example, in defining top management changes, Warner and Watts (1988) included not only the persons holding the title of CEO, but also chairman of the board. To address these possibilities, this study repeated the analysis employing alternative definitions for concerns relating to BATH, SMOOTH, and ΔMGMT as described in Table 7.4 below.

Table 7.4
Alternative definitions for big bath, income smoothing, and CEOs changes

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>BATH</td>
<td>Change in the firm i’s pre-impairment earnings from prior year to current year, deflated by lagged total asset. If the resulting amount is negative, then BATH is coded as the amount of change, zero otherwise</td>
<td>Chen et al. (2015)</td>
</tr>
<tr>
<td>SMOOTH</td>
<td>Change in the firm i’s pre-impairment earnings from prior year to current year, deflated by lagged total asset. If the resulting amount is positive, then SMOOTH is coded as the amount of change, zero otherwise</td>
<td>Chen et al. (2015)</td>
</tr>
<tr>
<td>ΔMGMT</td>
<td>An indicator variable equal to one if the firm i faces a change in key managements in current or prior financial year, and zero otherwise. The key management includes not only individuals holding the title of chief executive officer and managing director but also that of the chairman of the board.</td>
<td>Warner and Watts (1988)</td>
</tr>
</tbody>
</table>
The average percentage of chairman change during current and prior year for the full sample firms was 14.2%. The mean value of this variable was 17.6% and 13.2% for impairment and non-impairment firms respectively. The empirical results of the multivariate regression employing a Tobit model are shown in Table 7.5 below. As shown, the findings are qualitatively similar to the study's main results. Particularly, the coefficients for BATH, SMOOTH and ΔMGMT remain qualitatively unchanged. Therefore, the empirical findings of this study are robust to alternative specifications.
Table 7.5
Robustness checks employing alternative variables definitions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Prediction</th>
<th>Coefficient</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>?</td>
<td>-0.025</td>
<td>0.029</td>
</tr>
<tr>
<td><strong>Financial factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVTM</td>
<td>+</td>
<td><strong>0.002</strong></td>
<td>0.050**</td>
</tr>
<tr>
<td>RETURN</td>
<td>–</td>
<td>0.000</td>
<td>0.948</td>
</tr>
<tr>
<td>∆SALES</td>
<td>–</td>
<td>-0.005</td>
<td>0.259</td>
</tr>
<tr>
<td>∆OCF</td>
<td>–</td>
<td>-0.006</td>
<td>0.568</td>
</tr>
<tr>
<td>ROA</td>
<td>–</td>
<td><strong>-0.073</strong></td>
<td><strong>0.000</strong>*</td>
</tr>
<tr>
<td><strong>Managerial incentives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBTRATIO</td>
<td>–</td>
<td>0.001</td>
<td>0.894</td>
</tr>
<tr>
<td>BATH</td>
<td>–</td>
<td><strong>-0.128</strong></td>
<td><strong>0.000</strong>*</td>
</tr>
<tr>
<td>SMOOTH</td>
<td>+</td>
<td>0.034</td>
<td>0.126</td>
</tr>
<tr>
<td>∆MGMT</td>
<td>+</td>
<td><strong>0.004</strong></td>
<td><strong>0.075</strong></td>
</tr>
<tr>
<td>CEOTENURE</td>
<td>–</td>
<td>0.000</td>
<td>0.691</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GWA</td>
<td>+</td>
<td><strong>0.087</strong></td>
<td><strong>0.000</strong>*</td>
</tr>
<tr>
<td>SEGMENTS</td>
<td>?</td>
<td>0.002</td>
<td><strong>0.030</strong></td>
</tr>
<tr>
<td>ADD</td>
<td>+</td>
<td>0.009</td>
<td><strong>0.000</strong>*</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>-0.001</td>
<td>0.115</td>
</tr>
<tr>
<td>Wald-Chi-Square</td>
<td></td>
<td><strong>131.42</strong>*</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>1786</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. BATH is change in the firm i’s pre-impairment earnings from the prior year to the current year, deflated by lagged total asset. If the resulting amount is negative, then bath is coded as the amount of change, zero otherwise; SMOOTH is change in the firm i’s pre-impairment earnings from prior year to current year, deflated by lagged total asset. If the resulting amount is positive, then smooth is coded as the amount of change, zero otherwise; ∆MGMT is an indicator variable equal to one if the firm i faces a change in key managements in current or prior financial year, and zero otherwise. The key managements include not only individuals holding the title of chief executive officer and managing director but also include the chairman of the board.
2. All remaining variables are defined in the Table 7.1.
3. ***, ** and * denote statistical significance at 1, 5, and 10 percent, respectively, whereby significant coefficients are highlighted in bold.

Previous studies indicate that corporate governance plays an important role in managers goodwill impairment decisions (AbuGhazaleh et al., 2011; Verriest & Gaeremynck, 2009). Consequently, in the next robustness check, the study tackles the problem of correlated omitted variables by extending the empirical tests to include various corporate governance and ownership structure variables. The empirical results are reported in Table
7.6 below, wherein two models are produced. Model (1) includes board characteristics and ownership structure; and Model (2) includes audit committee characteristics.

Table 7.6
Robustness checks controlling for potentially omitted correlated variables, $N=1786$

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.040</td>
<td>-0.046</td>
</tr>
<tr>
<td><strong>Financial factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVTM</td>
<td>0.003</td>
<td>0.002</td>
</tr>
<tr>
<td>RETURN</td>
<td>0.001</td>
<td>0.002</td>
</tr>
<tr>
<td>ΔSALES</td>
<td>-0.006</td>
<td>-0.005</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.077</td>
<td>0.000***</td>
</tr>
<tr>
<td>ΔOCF</td>
<td>-0.004</td>
<td>0.000***</td>
</tr>
<tr>
<td><strong>Managerial incentives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBTTRATIO</td>
<td>-0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>BATH</td>
<td>-0.128</td>
<td>-0.125</td>
</tr>
<tr>
<td>SMOOTH</td>
<td>0.032</td>
<td>0.034</td>
</tr>
<tr>
<td>ΔMGMT</td>
<td>0.006</td>
<td>0.006</td>
</tr>
<tr>
<td>CEOTENURE</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GWA</td>
<td>0.092</td>
<td>0.085</td>
</tr>
<tr>
<td>SEGMENTS</td>
<td>0.007</td>
<td>0.008</td>
</tr>
<tr>
<td>ADD</td>
<td>-0.002</td>
<td>-0.001</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.000</td>
<td>0.857</td>
</tr>
<tr>
<td>BIND</td>
<td>0.000</td>
<td>0.285</td>
</tr>
<tr>
<td>SEPCHAIR</td>
<td>0.000</td>
<td>0.236</td>
</tr>
<tr>
<td>BOARDSIZE</td>
<td>0.000</td>
<td>0.041</td>
</tr>
<tr>
<td>MEETING</td>
<td>0.000</td>
<td>0.005***</td>
</tr>
<tr>
<td>EXEOWN</td>
<td>0.001</td>
<td>0.309</td>
</tr>
<tr>
<td>NONEXEOWN</td>
<td>0.001</td>
<td>0.871</td>
</tr>
<tr>
<td>INSTITUTIONAL</td>
<td>-0.002</td>
<td>0.623</td>
</tr>
<tr>
<td>ACIND</td>
<td>0.002</td>
<td>0.538</td>
</tr>
<tr>
<td>ACSI</td>
<td>0.002</td>
<td>0.084*</td>
</tr>
<tr>
<td>ACMEETING</td>
<td>0.000</td>
<td>0.179</td>
</tr>
<tr>
<td>ACMEETING</td>
<td>-0.003</td>
<td>0.269</td>
</tr>
<tr>
<td>BIG4</td>
<td>-0.004</td>
<td>0.146</td>
</tr>
<tr>
<td>Wald-Chi-Square</td>
<td><strong>143.94</strong>*</td>
<td><strong>138.53</strong>*</td>
</tr>
</tbody>
</table>

Notes:
1. All variables are defined in the Table 7.1
2. ***, ** and * denote statistical significance at 1, 5, and 10 percent, respectively, whereby significant coefficients are highlighted in bold.
The results for Model (1) and Model (2) show that variables BVTM, ROA, BATH, and ΔMGMT remained qualitatively unchanged even when the study included additional control variables in the regression model. Furthermore, of the thirteen additional control variables, Table 7.6 showed that only the estimated coefficient for EXEOWN (β = 0.001, p = 0.005), BOARDSIZE (β = 0.002, p = 0.041), and ACMEETING (β = 0.002, p = 0.084) were positive and significant. The next section discusses the results related to determinants of goodwill impairments.

7.4 Discussion of the Results Related to Determinants of Goodwill Impairments

This study examined the association between goodwill impairments with financial factors and managerial agency-based motives. In terms of financial factors, the study first found evidence that managers' decisions to impair goodwill are influenced by book-to-market value. Hence, the study provides support to other research indicating that market capitalization plays a significant role in the decision of managers to recognize impairment charges (AbuGhazaleh et al., 2011; Beatty & Weber, 2006; Chalmers et al., 2011; Giner & Pardo, 2014; Jarva, 2014).

Consistent with AbuGhazaleh et al. (2011), Hayn and Hughes (2006), Mohd-Saleh and Omar (2014), Omar et al. (2015), and Zang (2008), return on assets (ROA) was found to be associated with goodwill impairments in this study, meaning that the lower the returns on assets, the higher the amounts of goodwill impairment that Malaysian firms recognized. However, none of the remaining financial factors were found to be significant.
The insignificant results for stock performance support the findings of Chao and Horng (2013) and Giner and Pardo (2014), while it does not support the findings of Jarva (2014), Riedl (2004), and Zang (2008). The insignificant result for change in sales is inconsistent with the findings of Abdul Majid (2015), and Riedl (2004), whilst its consistent with the findings of AbuGhazaleh et al. (2011), Greco et al. (2015), and Peetathawatchai and Acaranupong (2012). Further, the insignificant result for change in operating cash flows is in line with the findings of Abdul Majid (2015) and Riedl (2004), but is in conflict with the finding of AbuGhazaleh et al. (2011), and Greco et al. (2015).

A plausible interpretation for the insignificant results for these financial factors is that managers apply much discretion in the choice of accounting for goodwill impairments. This suggests that goodwill impairment charges are unreliable, as outsiders could not verify management determinations of impairment charges. The results also suggest that reported goodwill impairments do not reflect the underlying firm economics. However, these results should be interpreted with caution because goodwill impairment is a result of a decline in the economic performance of CGUs and the proxies used in the empirical models capture firm’s performance as a whole. Moreover, deteriorating financial performance does not necessitate automatic impairment. Rather, they are just indicators that require conducting impairment tests (KPMG, 2014).

With respect to managerial incentives, big bath earnings management was found to be significantly associated with goodwill impairments. The significant finding is in line with previous empirical research (Abdul Majid, 2015; AbuGhazaleh et al., 2011; Giner &
Pardo, 2014; Jordan et al., 2007; Jordan & Clark, 2004; Laskaridou & Vazakidis, 2013; Rees et al., 1996; Riedl, 2004; Sevin & Schroeder, 2005). This suggests that managers of Malaysian firms employed their discretion and judgment to recognize a greater amount of impairment charges when pre-impairment earnings are abnormally low. That is, if a managers cannot manage earnings to meet targets level, they will exert efforts to deflate current earnings in favor of inflating future earnings and, therefore, future bonuses (Chao & Horng, 2013).

Inconsistent with Abdul Majid (2015), AbuGhazaleh et al. (2011), Chen et al. (2015), Giner and Pardo, (2014), and Peetathawatchai and Acaranupong (2012), income smoothing was found to be insignificant in this study. This means that managers do not undertake impairment charges when firms’ performance is high. The insignificant result for this variable supports the findings of Greco et al. (2015) and Omar and Mohd-Saleh (2011).

CEO changes were found to be positively associated with goodwill impairments, suggesting that incoming CEOs attempt to deflate the reported earnings through recording big charges in order to show superior performance in subsequent years, while blaming the departing CEOs for poor acquisition they made. Therefore, this study provides support for AbuGhazaleh et al. (2011), Greco et al. (2015), Lapointe-Antunes et al. (2008), Omar et al. (2015), and Zang (2008).

Similar to Abdul Majid (2015); AbuGhazaleh et al. (2011), Giner and Pardo (2014), Hamberg et al. (2011), and Peetathawatchai and Acaranupong (2012), debt ratio was
found to be insignificantly associated with goodwill impairments. The insignificant association may be attributed to the argument that debt ratio is a noisy measure for actual proximity to debt covenant violations (Dechow et al., 1996; Dichev & Skinner, 2002). An alternative explanation is that managers of Malaysia firms do not exercise their reporting discretion to avoid recording impairment charges when firms approach violating debt contracts, and debt ratio is high.

Furthermore, regression results yielded an insignificant association between CEOs tenure and goodwill impairments. The insignificant finding for CEOs tenure is consistent with that of Iatridis and Sentilechner (2014) and Mohd-Saleh and Omar (2014), but conflict with the findings of Beatty and Weber (2006), Hamberg et al. (2011), Masters-Stout et al. (2008), and Ramanna and Watts (2012). One explanation for insignificant result is that CEO tenure may not capture whether present managers were responsible for directing the past acquisitions that resulted in the current impairment charges (Bens, 2006).

Another explanation is that CEOs in Malaysia may be able to bear the consequences of poor acquisition decisions and thus, disclose goodwill impairments irrespective of their tenure. For example, due to lack of an active market for corporate control in Malaysia (Haniffa & Hudaib, 2006), CEOs are likely to have effective control of a firm by virtue of their ownership and therefore have enough power to recognize goodwill impairments. To further clarify this issue, this study provides detailed information about CEO tenure and goodwill impairments in Table 7.7.
Table 7.7
Additional descriptive statistics about CEOs tenure and goodwill impairments

<table>
<thead>
<tr>
<th></th>
<th>Number of observations</th>
<th>Percentage of observations</th>
<th>Frequency of impairments</th>
<th>Percentage of impairments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 4 years</td>
<td>572</td>
<td>32.03%</td>
<td>151</td>
<td>37.01%</td>
</tr>
<tr>
<td>Between 4 and 8 years</td>
<td>393</td>
<td>22.00%</td>
<td>88</td>
<td>21.57%</td>
</tr>
<tr>
<td>Between 8 to 11 years</td>
<td>290</td>
<td>16.24%</td>
<td>57</td>
<td>13.97%</td>
</tr>
<tr>
<td>More than 11 years</td>
<td>531</td>
<td>29.73%</td>
<td>112</td>
<td>27.45%</td>
</tr>
<tr>
<td>Total</td>
<td>1,786</td>
<td>100.00%</td>
<td>408</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

As shown, 29.73% of the sampled firms had CEOs with a length of tenure of more than 11 years. Those CEOs disclosed about 112 out of 408 the impairment announcements during five-year cumulative sample. This reinforces the argument that CEOs in Malaysia can confess via goodwill impairments that their acquisitions were inappropriate decisions.

In term of control variables, consistent with Giner and Pardo (2014), Lapointe-Antunes et al. (2008), and Zang (2008), the relative size of goodwill was found to be positively associated with goodwill impairments. This means that, when firms have greater a magnitude of goodwill for their assets, they disclose more impairment charges because the relative size of goodwill that is exposed to decline in its value will be greater (Zang, 2008).

Furthermore, the study found evidence of a positive and significant association between the number of business segments and goodwill impairments. This suggests that firms with several operating segments tend to test their goodwill for potential impairments more frequently, resulting in recognition of greater amounts of impairment losses. This
result contradicts the findings of Ramanna and Watts (2012) who found that the probability of reporting impairment charges decreased in firms having numerous business segments.

Consistent with AbuGhazaleh et al. (2011), addition to goodwill was found to be positively significant in explaining the amount of impairment charges, indicating that managers prefer to impair goodwill immediately after acquisition in order to avoid a sophisticated impairment review during the subsequent years (AbuGhazaleh et al., 2011). Another interpretation is that managers have incentives to expense goodwill immediately because impairment charges arising from unsuccessful acquisitions will be offset by additional capitalization of goodwill on the balance sheet (AbuGhazaleh et al., 2011).

In contrast with Beatty & Weber (2006), Chalmers et al. (2011), Mohd-Saleh and Omar (2014), and Zang, 2008), firm size was found to be negatively associated with goodwill impairments, indicating that the amount of impairment charges decreases with the size of firms. An explanation for this result is that smaller firms are likely to have more risky operations, which in turn leads to the increased probability of experiencing goodwill impairments (Cotter, Stokes, & Wyatt, 1998). This finding does not support the argument that larger firms disclose more impairment charges than small firms in order to reduce wealth transfers caused by adverse political actions (Chalmers et al., 2011).

In terms of corporate governance variables, this study followed DeAngelo, DeAngelo, and Skinner (1994), and Verriest and Gaeremynck (2009) and interpreted the results of a
significant association between corporate governance mechanisms and goodwill impairments as a reflection of good corporate governance practices. For example, DeAngelo et al. (1994) examined accounting choices for a sample of 76 financially troubled firms that reported at least three annual losses between 1980 - 1985 and reduced cash dividends. Their study showed that 40 of the 76 firms disclosed assets write-offs in the year reduced dividends, and the majority of the sample firms engaged in contractual renegotiations with government, unions and lenders. They concluded that asset write-offs were a result of increased monitoring from auditors and boards of directors.

In this study, a robust check shows the significant influence of board size on goodwill impairments. This finding supports the argument that a larger board may be better in reducing the opportunities for creative accounting practices relative to smaller boards. This is because a larger board may be more likely to have outside directors with accounting expertise (Xie et al., 2003). It also supports the argument that large boards enable directors to specialize, resulting in more effective monitoring (Ahmed & Duellman, 2007).

Managerial ownership was found to be associated with goodwill impairments. The evidence is in line with the claim that a higher level of managerial equity ownership helps to align the interests of professional managers with those of outside shareholders, thus, alleviating the agency problems between the conflicting parties (Fama & Jensen, 1983; Jensen & Meckling, 1976; Morck et al., 1988).
Finally, the study found that the likelihood of reporting goodwill impairments was positively related to audit committee meeting frequency. This finding is consistent with the notion that active and diligent audit committees meeting more frequently provide better monitoring over managers' behaviors and the financial reporting process (Ghosh et al., 2010; Owens-Jackson et al., 2009; Sharma, 2004).

A comparison of findings of the this study with Abdul Majid (2015) research reveals that some apparent inconsistencies exist for book-to-market ratios, CEO change, income smoothing, firm size, addition to goodwill, managerial ownership. The inconsistencies in the findings may be due to methodological differences, variable measurements, test period, and sample selection procedures. For example, with respect to managerial ownership, the findings of this current study were based on a total percentage of direct and indirect shares owned by executive directors' from total shares issued, while the finding of Abdul Majid (2015) were based only on direct equity ownership by executive directors.

To summarize, the results of regressions examining the determinants of goodwill impairments revealed, after controlling for financial factors, that goodwill impairments were associated with CEOs changes and big bath behavior. Nevertheless, as documented in the previous chapter, goodwill impairments are value relevant to shareholders. Therefore, the combined results suggest that establishing accounting standards allowing managers to communicate relevant information are difficult to be implemented reliably.
7.5 Multivariate Results

7.5.1 Test of Hypotheses Related to MCCG 2012

The primary objective of this section is to compare the association between goodwill impairment charges with financial factors and managerial agency-based motives across the pre- and post-MCCG 2012 regimes. As discussed earlier, the pre-MCCG 2012 regime in this study includes years 2010 and 2011, whereas the post-MCCG 2012 regime includes years 2013 and 2014.

Table 7.8 below presents the results of regressions estimating the determinants of goodwill impairments between the pre- and post-MCCG 2012 regimes. The regression models were separately estimated for the pre- and post-MCCG 2012 regimes. Then the Wald tests were conducted to decide whether the coefficients for financial factors and managerial agency-based motives were significantly different between the two subsamples.

Hypothesis H5a, H5b, H5c, and H5e stated that the association between goodwill impairments with book-to-market value, stock performance, change in sales, and change in operating cash flow would differ in the pre-MCCG 2012 regime compared to the post-MCCG 2012 regime. The results showed that none of these financial factors were statistically significant in both pre- and post-MCCG 2012 regimes. This suggests that reported impairment charges are less reflective of the underlying economic performance of the firms.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre- MCCG 2012</th>
<th>Post- MCCG 2012</th>
<th>Wald test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>p-Value</td>
<td>Coefficient</td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.042</td>
<td>0.005</td>
<td>-0.012</td>
</tr>
<tr>
<td>Financial factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVTM</td>
<td>0.002</td>
<td>0.235</td>
<td>0.001</td>
</tr>
<tr>
<td>RETURN</td>
<td>-0.003</td>
<td>0.353</td>
<td>0.001</td>
</tr>
<tr>
<td>ΔSALES</td>
<td>-0.004</td>
<td>0.674</td>
<td>-0.011</td>
</tr>
<tr>
<td>ΔOCF</td>
<td>0.003</td>
<td>0.843</td>
<td>0.001</td>
</tr>
<tr>
<td>ROA</td>
<td><strong>-0.096</strong></td>
<td><strong>0.000</strong>*</td>
<td>-0.057</td>
</tr>
<tr>
<td>Managerial incentives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBTARIO</td>
<td>-0.011</td>
<td>0.309</td>
<td>0.011</td>
</tr>
<tr>
<td>BATH</td>
<td>-0.072</td>
<td>0.106</td>
<td>-0.139</td>
</tr>
<tr>
<td>SMOOTH</td>
<td>0.063</td>
<td>0.150</td>
<td>0.045</td>
</tr>
<tr>
<td>ΔCEO</td>
<td><strong>0.010</strong></td>
<td><strong>0.040</strong>*</td>
<td>0.004</td>
</tr>
<tr>
<td>CEO T ENURE</td>
<td>0.001</td>
<td>0.646</td>
<td>0.001</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GWA</td>
<td>0.076</td>
<td><strong>0.003</strong>*</td>
<td>0.083</td>
</tr>
<tr>
<td>SEGMENTS</td>
<td><strong>0.002</strong></td>
<td><strong>0.048</strong>*</td>
<td><strong>0.001</strong></td>
</tr>
<tr>
<td>ADD</td>
<td><strong>0.013</strong></td>
<td><strong>0.000</strong>*</td>
<td>0.006</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.001</td>
<td>0.961</td>
<td>-0.002</td>
</tr>
<tr>
<td>2011</td>
<td>0.004</td>
<td>0.174</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>0.001</td>
<td>0.714</td>
</tr>
<tr>
<td>Industry Dummies</td>
<td>Included</td>
<td>Included</td>
<td></td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>12.5%</td>
<td>8.5%</td>
<td></td>
</tr>
<tr>
<td>LR-Chi-Square</td>
<td><strong>97.61</strong>*</td>
<td><strong>62.30</strong>**</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>733</td>
<td>698</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. All variables are defined in the Table 7.1.
2. 2011, and 2014 represent year dummies.
3. ***, ** and * denote statistical significance at 1, 5, and 10 percent, respectively, whereby significant coefficients are highlighted in bold.
H5d stated that the association between goodwill impairments with return on assets (ROA) would differ in the pre-MCCG 2012 regime compared to the post-MCCG 2012 regime. The results showed that the estimated coefficients on ROA was negative and significant in both the pre-MCCG 2012 regime ($\beta = -0.096$, $p = 0.000$), and the post-MCCG 2012 regime ($\beta = -0.057$, $p = 0.038$). Nevertheless, the Wald test indicated that the difference in the coefficient was statistically significant at the 1% level. This indicates that the goodwill impairments recognized before the MCCG 2012 regime have greater association with ROA. Therefore, hypothesis H5d is supported in this study.

In terms of managerial agency-based motives, hypothesis H6a postulated that the association between goodwill impairment and debt ratio would differ in the pre-MCCG 2012 regime compared to the post-MCCG 2012 regime. The regression results showed that the estimated coefficients on DEBTRATIO were insignificant in the pre ($\beta = -0.011$, $p = 0.309$), and the post-MCCG 2012 regimes ($\beta = 0.011$, $p = 0.315$). Therefore, the null hypothesis for H6a cannot be rejected.

Hypothesis H6b stated that the association between goodwill impairment and big bath behavior would differ in the pre-MCCG 2012 regime compared to the post-MCCG 2012 regime. The regression models showed that, while the coefficient on BATH was insignificant in the pre-MCCG 2012 regime ($\beta = -0.072$, $p = 0.014$), it was negative and statistically significant in the post-MCCG 2012 regime ($\beta = -0.136$, $p = 0.005$). This implied that the earnings management via big bath was more pronounced after MCCG 2012 implementation. Hence, hypothesis H6b was validated in this study.
Hypothesis H6c stated that the association between goodwill impairment and income smoothing would differ in the pre-MCCG 2012 regime compared to the post-MCCG 2012 regime. The regression results showed that the estimated coefficients on SMOOTH were insignificant in the pre regime ($\beta = 0.063, p = 0.150$), and the post-MCCG 2012 regimes ($\beta = 0.045, p = 0.275$). Hence, the null hypothesis was not rejected.

Hypothesis H6d postulated that the association between goodwill impairment and CEO changes would differ in the pre-MCCG 2012 regime compared to the post-MCCG 2012 regime. The coefficient for $\Delta$CEO was significantly related with goodwill impairments during the pre-MCCG 2012 period ($\beta = 0.010, p = 0.040$). Conversely, the coefficient on $\Delta$CEO was positive but not significant during the post-MCCG 2012 regimes ($\beta = 0.004, p = 0.437$). Such results supported hypothesis H6d and suggested that $\Delta$CEO had a greater association with goodwill impairments before the implementation of the new code.

Finally, hypothesis H6e postulated that the association between goodwill impairment and CEO tenures would differ in the pre-MCCG 2012 regime compared to the post-MCCG 2012 regime. The regression results yielded insignificant results for CEOTENURE during both pre- and post-MCCG 2012 regimes ($\beta = 0.001, p = 0.646, \beta = 0.001, p = 0.687$ respectively). Therefore, the null hypothesis for H6e cannot be rejected. The next section provides the robustness check for the study results.
7.5.2 Robustness Tests

To further validate the results obtained from previous section, the study ran the regression models on the whole sample by interacting the dummy variable CODE with each of the financial factors and managerial agency-based motives. The empirical results are reported in Table 7.9 below, whereby Model (1) estimates the main effect model for the determinants of goodwill impairments; Model (2) adds CODE interacted with financial factors; Model (3) includes CODE interacted with reporting opportunistic reporting incentives.

With respect to the financial factors, the results of Model (1) indicated that only the estimated coefficient for ROA was significant ($\beta = -0.082$, $p = 0.000$), suggesting that unprofitable firms as measured by ROA were associated with increased goodwill impairments. More important, in Model (2) the study showed that the estimated coefficients for ROA*CODE were insignificant ($\beta = 0.027$, $p = 0.337$), whereas its corresponding coefficients on ROA were significant ($\beta = -0.094$, $p = 0.000$). This indicated that MCCG 2012 had no incremental influence on the association between ROA and goodwill impairments.
Table 7.9
Panel data Tobit regression comparing the determinants of goodwill impairments between pre- and post-MCCG 2012 regimes

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>p-values</th>
<th>Coefficient</th>
<th>p-values</th>
<th>Coefficient</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intercept</strong></td>
<td>-0.027</td>
<td>0.024</td>
<td>-0.028</td>
<td>0.020</td>
<td>-0.027</td>
<td>0.026</td>
</tr>
<tr>
<td><strong>Financial factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVTM</td>
<td>0.002</td>
<td>0.200</td>
<td>0.002</td>
<td>0.188</td>
<td>0.002</td>
<td>0.182</td>
</tr>
<tr>
<td>RETURN</td>
<td>-0.001</td>
<td>0.688</td>
<td>-0.002</td>
<td>0.449</td>
<td>-0.001</td>
<td>0.697</td>
</tr>
<tr>
<td>ΔSALES</td>
<td>-0.004</td>
<td>0.436</td>
<td>0.003</td>
<td>0.706</td>
<td>-0.003</td>
<td>0.534</td>
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<tr>
<td>ΔOCF</td>
<td>-0.001</td>
<td>0.897</td>
<td>-0.009</td>
<td>0.570</td>
<td>0.001</td>
<td>0.985</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.082</td>
<td>0.000***</td>
<td>-0.094</td>
<td>0.000***</td>
<td>-0.081</td>
<td>0.000***</td>
</tr>
<tr>
<td>BVTM×CODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RETURN×CODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔSALES×CODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ΔOCF×CODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA×CODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Managerial incentives</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBTRATIO</td>
<td>-0.004</td>
<td>0.646</td>
<td>-0.004</td>
<td>0.656</td>
<td>-0.005</td>
<td>0.678</td>
</tr>
<tr>
<td>BATH</td>
<td>-0.110</td>
<td>0.000***</td>
<td>-0.106</td>
<td>0.001***</td>
<td>-0.049</td>
<td>0.262</td>
</tr>
<tr>
<td>SMOOTH</td>
<td>0.037</td>
<td>0.159</td>
<td>0.033</td>
<td>0.211</td>
<td>0.041</td>
<td>0.228</td>
</tr>
<tr>
<td>ΔCEO</td>
<td>0.007</td>
<td>0.045**</td>
<td>0.007</td>
<td>0.050**</td>
<td>0.011</td>
<td>0.022**</td>
</tr>
<tr>
<td>CEO TENURE</td>
<td>0.001</td>
<td>0.633</td>
<td>0.001</td>
<td>0.670</td>
<td>0.001</td>
<td>0.772</td>
</tr>
<tr>
<td>DEBTRATIO×CODE</td>
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<td></td>
<td></td>
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<td>0.004</td>
<td>0.767</td>
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<tr>
<td>BATH×CODE</td>
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<td></td>
<td></td>
<td>-0.111</td>
<td>0.058*</td>
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<tr>
<td>SMOOTH×CODE</td>
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<td></td>
<td></td>
<td>-0.014</td>
<td>0.755</td>
</tr>
<tr>
<td>ΔCEO×CODE</td>
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<td></td>
<td></td>
<td></td>
<td>-0.008</td>
<td>0.208</td>
</tr>
<tr>
<td>CEO TENURE×CODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.001</td>
<td>0.937</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>p-values</td>
<td>Coefficient</td>
<td>Coefficient</td>
<td>p-values</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td>----------</td>
<td>-------------</td>
<td>-------------</td>
<td>----------</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODE</td>
<td>0.076</td>
<td>0.000***</td>
<td>0.077</td>
<td>0.001</td>
<td>0.002</td>
<td>0.766</td>
</tr>
<tr>
<td>GWA</td>
<td>0.002</td>
<td>0.037**</td>
<td>0.002</td>
<td>0.033**</td>
<td>0.002</td>
<td>0.043**</td>
</tr>
<tr>
<td>SEGMENTS</td>
<td>0.008</td>
<td>0.001***</td>
<td>0.009</td>
<td>0.001***</td>
<td>0.008</td>
<td>0.002***</td>
</tr>
<tr>
<td>ADD</td>
<td>-0.001</td>
<td>0.290</td>
<td>-0.001</td>
<td>0.283</td>
<td>-0.001</td>
<td>0.278</td>
</tr>
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<td>SIZE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wald-Chi-Square</td>
<td>98.14***</td>
<td>102.77***</td>
<td>104.07***</td>
<td>104.07***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1431</td>
<td></td>
<td>1431</td>
<td>1431</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. CODE is dummy variable equals to one for the observation belongs to the post-MCCG 2012 regime, and zero otherwise.
2. All remaining variables are defined in the Table 7.1.
3. ***, ** and * denote statistical significance at 1, 5, and 10 percent, respectively, whereby significant coefficients are highlighted in bold.
Of the remaining financial factors, none were statistically significant, suggesting that the association between goodwill impairments with financial factors was generally weak in both regimes. With respect to the managerial agency-based motives, the results of Model (1) showed that only the coefficient of BATH ($\beta = -0.110$, $p = 0.000$), and $\Delta$CEO ($\beta = -0.007$, $p = 0.045$) were significant as predicted. These results indicated that management's incentives to distort earnings affected the magnitudes of goodwill impairment charges during the full sample period.

More importantly, when the interaction effects were added, Model (3) revealed that the coefficient on interaction term between BATH$\times$CODE was marginally significant ($\beta = -0.111$, $p = 0.058$). By contrast, the estimated coefficients on BATH were insignificant ($\beta = -0.049$, $p = 0.262$). The findings reinforced the earlier results and suggested that BATH exhibit greater association with impairment charges in the pre-MCCG 2012 regime than in the post-MCCG 2012 regime.

Similarly, the estimated coefficient on the interaction term between $\Delta$CEO$\times$CODE was insignificant ($\beta = -0.008$, $p = 0.208$). On the other hand, the coefficients for $\Delta$CEO were positive and significant ($\beta = 0.011$, $p = 0.022$). Given the results obtained from previous section, this evidence indicated that $\Delta$CEO became less influential in affecting the likelihood of goodwill impairments in the post-MCCG 2012 regime. Overall, the results of this study are robust with respect to the choice of model specification and estimation techniques. The next section provides discussions of the findings relating to the influence
MCCG 2012 on the association between goodwill impairments with financial factors and managerial agency-based motives.

7.6 Discussion of the Results Related to MCCG 2012

Agency theory provides the theoretical framework for most corporate governance studies (Jensen & Meckling, 1976). The theory indicates that information asymmetry and agency costs arise mainly due to conflicts of interest between managers and shareholders, resulting from separation ownership and management (Jensen & Meckling, 1976; Shieifer & Vishny, 1986). To limit these conflicts, firms set up governance mechanisms that can protect interests of shareholders (Fama & Jensen, 1983; Jensen & Meckling, 1976).

Building on prior research, the study began with the belief that the corporate governance code could reduce the managerial discretion and hence curb the managerial opportunistic reporting of managers. More specifically, the study examined whether the association between goodwill impairments with financial factors and managerial agency-based motives differs between the pre- and the post-MCCG 2012 regimes.

The empirical evidence revealed a significant association between return on assets and goodwill impairments in both the pre- and post-MCCG 2012 regimes. Nevertheless, return on assets had a weaker association with goodwill impairments in post- MCCG 2012 relative to pre-MCCG 2012. Evidence also revealed that the association between goodwill impairment and big bath earnings management behavior was more pronounced after the implementation of the new code. Furthermore, the findings revealed that
goodwill impairments are more likely to occur when firms experienced change in their CEOs before the implementation of MCCG 2012. Together, this evidence generally indicates that no material improvement exists in the reporting of goodwill impairments across the pre- and post-MCCG 2012 regimes.

A plausible explanation for these results is that MCCG was originally derived from the Hampel Report in the United Kingdom and thus would be unsuitable for the Malaysian business environment (Liew, 2008). This is because the business environment in Malaysia is different from that of the United Kingdom in terms of concentrated ownership structure, significant political influences, and unique local peculiarities and cultures (Liew, 2007; Salim, 2006; Vithiatharan & Gomez, 2014). Moreover, in contrast to the United Kingdom, the main agency problem in Malaysia is between dominating owners and minority owners (Htay et al., 2013).

As a result, the focus on the conventional conflict between stockholders and managers may not provide solutions to the issues of corporate governance in Malaysia (Salim, 2006). For example, outside director independence is likely to be impaired in a family-dominated firm because family holders will have a power over the hiring and the firing of outside directors. Hence, outside directors are less likely to challenge the wishes of dominant family holders (Jaggi et al., 2009). Overall, unless regulators consider the local peculiarities, successful implementation of corporate governance reforms is unlikely to occur (Machuga & Teitel, 2009).
7.7 Summary

In this chapter, the study reported the findings of the regression models undertaken to examine the determinants of goodwill impairments. It also discussed the findings of whether the association between goodwill impairments with financial factors and managerial agency-based motives differs between the pre- and post-MCCG 2012 regimes. The results show that impairments charges recognized by Malaysian firms was associated with managerial agency-based motives such as big bath accounting and CEO changes. A further analysis reveals that big bath behavior was more pronounced after the implementation of MCCG 2012, while CEO change was pronounced in pre-MCCG regime. The next chapter reports and discusses the conclusions of the study.
CHAPTER EIGHT
SUMMARY AND CONCLUSION

8.0 Overview of the Chapter
This chapter provides an overview of the main findings and implications of the study. Further, limitations of the study along with avenues for future research are discussed. It comprises the following sections. Section 8.1 highlights the focus of the study. This is followed by a summary of key findings from the study in Section 8.2. The implications of the study are discussed in Section 8.3. The chapter then provides the limitations of the study and possible avenues for future research in Section 8.4. Finally, concluding remarks are drawn in Section 8.5.

8.1 Focus of this Study
In recent years, Malaysian-listed firms have replaced the accounting treatment of goodwill from amortization to the impairment approach that heavily relied on unverifiable fair values. This shift from mandatory amortization to a frequent review for potential impairment has strengthened the heated debate on how to evaluate purchased goodwill subsequent to business combination transaction (Knauer & Wöhrmann, 2015).

Standard-setters intention in issuing the new standards is to provide the shareholders with useful information concerning the true economic value of goodwill (AbuGhazaleh et al., 2011). Proponents of the impairment approach believe that managers may employ the reporting flexibility embedded in the impairment approach to communicate privileged
information about firms’ value. Opponents argue that managers will employ this
discretion to pursue self-interest in the opportunistic sense (Ramanna & Watts, 2012).

Consistent with Knauer and Wöhrmann (2015), this study indicates that claims made by
both of the proponents and opponents of the impairment approach are not mutually
exclusive. Instead, the study combines the two arguments of research. Particularly, this
study first examines the value relevance of goodwill impairment. It hypothesizes that
managers are more likely to communicate relevant information to capital markets if
goodwill impairments are significantly associated with firms’ market value of equity.

The study explores this issue by further investigating the impact of corporate governance
on the value relevance on goodwill impairments. The empirical tests are motivated by the
arguments that the goodwill impairment charges under MFRS NO. 136 are difficult to
audit and verify, subject to excessive managerial discretion, and susceptible to deliberate
manipulation of earnings (Wines et al., 2007). These issues may compromise the
reliability of goodwill impairments due to greater information asymmetry between better-
informed managers and less-informed shareholders (Landsman, 2007). Hence, good
corporate governance is needed to prevent opportunities for abusing the use of
managerial discretion and, consequently, to make goodwill impairments more useful and
credible to shareholders. To achieve this task, the study utilizes principal components
analysis (PCA) to derive five factors which are board independence, board activity, audit
quality, monitoring power, and audit committee expertise, that summarize the
characteristics of thirteen individual governance indicators. The use of multiple indicators
can mitigate the measurement error associated with a single indicator (Larcker et al., 2007).

To further explore the claim by opponents of the new standards, the study examines the factors influencing goodwill impairments. Based on prior literature, the study claims that goodwill impairments occur due to financial factors and managerial agency-based motives. That is, when managers observe that firms face deteriorating financial performance and the recoverable amount of CGUs is less than its carrying amount, they should report impairment charges. However, due to the inherent flexibility in the impairment approach, managers may not report economic impairments when they have agency-based motives to do so (Ramanna & Watts, 2012). Therefore, an effective corporate governance structure is needed to mitigate such behavior.

Given the decision of the Securities Commission Malaysia (SC) regarding the enactment of MCCG 2012, this study takes advantage of the new regulatory reform and compares the determinants of goodwill impairments across the pre- and the post-MCCG 2012 regimes. The MCCG 2012 was released in 31 March 2012 as a reaction to corporate scandals that continued to appear in the Malaysian business environment (Governance Newsletter, 2010). The code attempts to reinforce the aspect of director independence, strengthen board composition, and establish clear roles and responsibilities of the board of directors (Securities Commission, 2012). This study argues that, if the code has improved the corporate governance mechanisms and lower manipulation though the provision of MFRS No. 136, then the association between goodwill impairments with
financial factors and managerial agency-based motives may differ between the pre- and post-MCCG 2012.

The sample for this study was drawn from 1,786 Malaysian publicly listed firms on Bursa Malaysia over the period 2010 to 2014. The statistical method employed are fixed-effects panel regression and Tobit panel regression to examine the determinants and value relevance of goodwill impairments, respectively.

8.2 Summary of the Findings

The study found evidence that goodwill impairment charges are value relevant to market participants, consistent with shareholders perceiving reported amounts of impairment charges as better reflecting the decline in the value of goodwill. The study also found that the coefficients on the interaction terms between goodwill impairments and board activity factor, audit quality factor, monitoring power factor and audit committee expertise factor each were positive and significant. These results are consistent with shareholders viewing firms with effective corporate governance as mitigating the negative news of goodwill impairments. Perhaps shareholders may view goodwill impairments disclosed by well-governed firms as a reflection of a management incentive to develop a reputation for reliable and transparent financial reporting. They may also be of the view that reduced opportunities exist for managerial opportunisms with respect to goodwill impairments in firms with effective corporate governance. For example, from the standpoint of shareholders, goodwill impairments convey negative news because they are big bath earnings management and effective corporate governance mechanisms alleviate such
behavior as captured by significant positive coefficients on the interaction terms between goodwill impairments and corporate governance factors.

With respect to determinants of goodwill impairment charges, results for financial factors show that the excess carrying amounts of assets over market capitalization and the poor return on assets are associated with increased goodwill impairments. In terms of managerial agency-based motives, the study documented that the amounts of reported impairment by Malaysian firms were related with big bath accounting management and CEO changes. These findings are supplemented by ex-ante evidence that goodwill impairments provide relevant information to shareholders. Therefore, the combined results suggest that providing relevant information within goodwill accounting under MFRS 3 and MFRS 136 is difficult to implement reliably.

Finally, consistent with the criticisms that accompanied MCCG, the results revealed, that, except for CEO change, goodwill impairment reported in post-MCCG 2012 has a greater association with big bath earnings management and a lower association with return on assets relative to those reported before MCCG 2012 implementation. This suggests that managers apply more discretion to justify their goodwill impairment decisions subsequent to MCCG 2012. Therefore, the results are consistent with MCCG critics' claims that applying corporate governance reform based on Anglo-American framework is inappropriate for Malaysian business environment. Table 8.1 below summarizes the results of hypotheses testing.
Table 8.1

*Summary results of hypotheses testing*

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Goodwill impairment losses under MFRS No. 136 are value relevant.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: Corporate governance attributes affect the value relevance of goodwill impairment losses under MFRS No. 136.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3a: There is a significant association between book-to-market value and goodwill impairment.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3b: There is a significant association between stock performance and goodwill impairments.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3c: There is a significant association between change in sales and goodwill impairments.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3d: There is a significant association between return on assets (ROA) and goodwill impairments.</td>
<td>Supported</td>
</tr>
<tr>
<td>H3e: There is a significant association between change in operating cash flow flows (OCF) and goodwill impairments.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5a: There is a significant negative association between the level of debt and recorded goodwill impairments.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5b: Firms with unusually low pre-impairment earnings are more likely to record greater magnitude of goodwill impairments.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5c: Firms with unusually high pre-impairment earnings are more likely to record greater magnitude of goodwill impairments.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5d: Firms that face a new change in senior management are more likely to record greater magnitude of goodwill impairments.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5e: Firms with managers that have a longer tenure are less likely to record goodwill impairment.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5a: The association between goodwill impairments and book-to-market value differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.</td>
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</tbody>
</table>
Table 8.1 continued

<table>
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<tr>
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<th>Description</th>
<th>Support</th>
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<td>H5d:</td>
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<td>H5e:</td>
<td>The association between goodwill impairments and change in operating cash flow (OCF) differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.</td>
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<tr>
<td>H6a:</td>
<td>The association between goodwill impairment and debt ratio differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.</td>
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</tr>
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<td>H6b:</td>
<td>The association between goodwill impairment and big bath behavior differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.</td>
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</tr>
<tr>
<td>H6c:</td>
<td>The association between goodwill impairments and income smoothing differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6d:</td>
<td>The association between goodwill impairment and CEOs change differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.</td>
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</tr>
<tr>
<td>H6e:</td>
<td>The association between goodwill impairment and CEOs tenure differs in the pre-MCCG 2012 regime as compared to the post-MCCG 2012 regime.</td>
<td>Not supported</td>
</tr>
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8.3 Implications of the study

8.3.1 Theoretical Implications

This study contributes to the literature in the area of financial accounting in several important ways. First, drawn from agency theory and signaling theory, this study examines the determinants and value relevance of goodwill impairments in order to shed
the light on the claims of both the opponents and proponents of impairment approach. Thus, a clear point of this study is that opportunistic reporting alone is not enough to explain the issue of accounting discretion in goodwill impairment. Rather, giving some weight to signaling incentives is important, as managers can disclose their inside information to market participants in order to lessen the information asymmetries and thus to reduce the firms’ cost of capital (Wolk et al., 2013).

Second, this study offers empirical support that managerial discretion over accounting choices is likely to be used in a complex manner, reflecting managerial incentives to both communicating inside information and extracting rents from shareholders (Godfrey & Koh, 2009; Holthausen, 1990; Watts & Zimmerman, 1990). For instance, the study provides evidence that goodwill impairment losses are value relevant to shareholders. Nevertheless, the study also provides evidence that goodwill impairment charges are associated with big bath accounting and CEO changes.

Third, this study extends the work of Lapointe-Antunes et al. (2009) by identifying five distinct factors that are likely to capture various aspects of corporate governance quality. Drawn from agency theory, the current study shows evidence that effective corporate governance alleviates the negative news communicated by goodwill impairments. Given that goodwill impairments are big bath behavior, this evidence suggests that from the shareholders’ standpoint, establishing effective monitoring mechanisms can reduce the opportunities for earnings management and improve the credibility of accounting amounts. Therefore, the obvious implication for corporate governance from the
perspective of agency theory is that corporate governance can mitigate the information asymmetries that arise from the sophisticated impairment review.

Finally, the study failed to find evidence that the reporting of goodwill impairments has improved subsequent to MCCG 2012 implementation as captured by the association between goodwill impairments with financial factors and managerial agency-based motives. Therefore, the results do not support the prediction of agency theory that MCCG 2012 as a mechanism can limit managerial discretion and reduce earnings management via goodwill impairments. Therefore, the results highlight the argument that applying corporate governance reforms based on an Anglo-American framework is inappropriate in countries in which ownership concentration is prevalent. Collectively, the study hopes that the empirical findings contribute to improved knowledge of managerial discretion over accounting choices relating to goodwill impairments and to clarify the role played by corporate governance in principles-based accounting standards.

8.3.2 Practical Implications

This study is useful to standard setters, policy makers and market participants in a number of ways. First, the findings of this study can serve as a reference point for standard setters and other policy makers suggesting that managers are likely to exercise professional judgment under principles-based standards. It supports the claims by the standard setters that substituting fair value-based measures for historical cost-based measures will allow a manager to communicate value relevant information to market participants.
Second, even though the results show that goodwill impairment charges are related to managerial agency-based motives in the Malaysian context, their significant association with equity values suggests that they provide useful information to shareholders. Thus, one important implication is that providing relevant information to shareholders through fair-value-based reporting system is difficult to implement reliably. This is an important implication for standards setters and policy makers desiring to develop appropriate accounting standards.

Third, the findings of this study show that managers engage in creative accounting activities in the choice of accounting for goodwill impairments. These findings highlight the importance of corporate governance in preventing opportunities for earnings management.

Fourth, the findings show that effective corporate governance mechanisms dampen the amounts of bad news conveyed by goodwill impairments. Thus, this study provides valuable findings to standard setters and other policy makers in Malaysia as it suggests that shareholders use information about corporate governance in their assessment of goodwill impairments as summarized by firms’ market value.

Finally, the study shows that the voluntary MCCG 2012 has no positive impact on the reporting of goodwill impairment. Thus, the findings of the study may offer informative indicators to policy makers interested in evaluating the efficacy of the new code on
corporate governance. It indicates that implementing successful governance reform is unlikely to be realized, unless the regulators and policy makers consider local peculiarities and business environment.

8.4 Limitations and Avenues for Future Research

The findings in this study are subject to a few important limitations. The study argues that these limitations will provide possible avenues for fruitful future research. First, value relevant studies depend heavily on the assumption of efficient markets and the rationality of shareholders (Deegan & Uneman, 2011; Scott, 2012). Hence, the empirical results may not provide exclusive evidence that shareholders view reported goodwill impairment as communicating useful information, as some possibility exists that a security market may not be fully efficient (see, for example, Subramanyam, 1996). Therefore, future studies may carry out survey to explore shareholder perceptions regarding goodwill impairment charges. Such studies may provide an opportunity to discover further questions related to the value relevance of goodwill impairments and hence may be seen as an extension to this study.

Second, this study does not test whether managers employ their reporting discretion to enhance the efficiency of contracts. Rather, it attempts to provide insight into the information perspective, which suggests that managers use their reporting flexibility to provide relevant information about firms future prospects (Holthausen, 1990). Therefore, future studies may examine whether accounting discretion in goodwill impairments is also associated with efficient contracting.
Third, this study focuses on one dimension of the quality of accounting information. Future studies may consider other dimensions such as predictability, timeliness, persistence and conservatism. For instance, given the flexibility in the standards to avoid or delay recognising goodwill impairments, future studies could attempt to examine the timeliness of impairment charges reported by Malaysian firms.

Fourth, although no clear conceptual basis is present for selecting appropriate corporate governance attributes to include in the empirical tests (Larcker et al., 2007), the study uses various corporate governance attributes to create composite variables to proxy for corporate governance effectiveness. Specifically, the variables included in the empirical tests consider numerous governance categories such as board characteristics, audit committee characteristics, audit quality and ownership, but the categories are not exhaustive. Therefore, future studies may refine measures of corporate governance and develop better indicators of corporate governance quality.

Fifth, the power of the empirical tests examining factors influencing goodwill impairments relies on the extent to which a regression model controls for financial factors (Wilson, 1996). For ideal empirical tests, financial factors would comprise managers’ unbiased insights of the CGUs future performance, as this is important in measuring the actual economic impairment (AbuGhazaleh et al., 2011; Riedl, 2004). However, these insights are, in essence, unobservable (Riedl, 2004), and a lack of full detail disclosure about CGUs and goodwill is present in the annual reports (Carlin et al., 2009a). Thus, alternative proxies are employed in the study to capture some portion of the managers’
insights. Likewise, because obtaining detailed information about management's compensation contracts and debt contracts is difficult, alternative proxies are used in this study to examine management incentives to manipulate earnings via goodwill impairments. As a result, any noise or measurement error arising from using these proxies could bias the estimated coefficients and the results of the regression model (Lapointe-Antunes et al., 2008). Therefore, this study can be extended to other institutional settings, whereby better proxies for financial factors and concerns relating to management's compensation contracts and debt can be used in the regression model. For example, the empirical analysis could be improved by considering bonus pay and net worth covenants instead of the proxies that are used in this study.

Sixth, this study uses CEO tenure as a proxy to capture the concern related to CEO reputations. However, this is an indirect proxy of whether the present CEOs were actually responsible for directing the acquisition decisions that led to the current impairment charges (Bens, 2006). Future studies could create a better definition for concern related to CEO reputation. For example, they could attempt to use a dummy variable that equals one if the present CEOs were responsible for acquisition decisions that generate goodwill, zero otherwise.

Finally, the empirical analysis compares the association between goodwill impairment with financial factors and managerial agency-based motives across the pre- and the post-MCCG 2012 regimes. Thus, this study focuses on specific accrual in the empirical tests. As a response to this limitation, future studies may compare earnings management across
the pre- and the post-MCCG 2012 periods employing aggregate measures such as discretionary accruals, as this measure is more comprehensive (Duh et al., 2009). Moreover, as more data are available after MCCG 2012, more robust results could be obtained by considering if the code has a lagged effect as indicated by Chen and Zhang (2014).

8.5 Concluding Remarks

Impairment reviewing under MFRS 136 requires firms to assess the underlying economic values of goodwill and recognize impairment charges against income when carrying amount of cash generating unit (CGU) that contains goodwill exceeds its recoverable amount. The objective of impairment approach is to provide the shareholders with useful information concerning the true economic value of goodwill, and enable managers to disseminate their superior information about firm future performance. However, many critics challenge this approach by arguing that managers will exploit the flexibility granted in the impairment approach to distort financial reports opportunistically in line with their own interests.

The findings of this study indicate that, while goodwill impairments disclosed by Malaysian firms are value relevant to shareholders, they are also associated with big bath behavior and CEO change. This suggests that establishing accounting standards that allow managers to communicate their inside information is difficult to implement reliably.
The study also provides evidence regarding the importance of corporate governance in shareholders' decision-making. They perceive that managers of firms with rigorous corporate governance structure are less likely to engage in big bath behavior or to not disclose credible information about goodwill impairments. Furthermore, the study highlights the points raised by opponents of MCCG in that the current code, which is influenced heavily by the Hampel Report in the United Kingdom, is unsuitable to the Malaysian business environment. The study suggests that corporate governance in Malaysia constitutes mere cosmetic alterations and nothing more than "box ticking" behavior to satisfy legal requirements. Finally, the study hopes that these findings serve as a reference point for various groups desiring to improve the current accounting standards and corporate governance in Malaysia and beyond.


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