Abstract

We explored some links between earnings management and accounting fraud. Most previous studies ignored the connections between earnings management and accounting fraud. This study attempted to find the linkage between them by exploring some cases. In particular, we focused on M&A deals. Accounting for acquired goodwill has been subject to considerable debate for at least the past 50 years because the accounting tends to provide managers with discretion to manipulate accounting figures. The European Securities and Markets Authority (ESMA) reported that overall impairment losses on goodwill amounted to only €40 billion from the €790 billion of goodwill in spite of the EU sovereign debt crisis in 2011. This showed that managers tended to intentionally avoid impairments losses. Goodwill accounting gives managers opportunities to manipulate accounting figures. This study used two case studies to explore the accounting manipulation through M&A transactions. The first case is the scandal of Olympus Corporation (Olympus) which is one of the most famous accounting fraud. Olympus had hidden more than $1.5 billion of investment losses through M&A transactions until the scandal exposure in 2011. The second case is the unintentional mismanagement by HP. HP recorded $8.8 billion of the impairment loss of goodwill after the detection of Autonomy’s fraud. The boundary between earnings management and accounting fraud is unclear. Managers have a broad discretion into the accounting for goodwill. This would lead to a high possibility that many companies poorly comply with the requirements of accounting.

Keywords: Goodwill; Accounting Fraud; Earnings Management; Amortization

Introduction

Many previous studies have already suggested that managers have an incentive to manipulate a financial result meeting their earnings targets. Managers tend to manipulate accounting figures through economic transactions [1]. If value for an economic transaction is bigger, manipulatable value is also larger. M&A is one of the biggest deals in management decision. There are many manipulation cases by handling M&A deals. Those cases were illegal and legal. The Olympus Corporation (hereafter Olympus) scandal in 2011 is a typical and the latest illegal case for M&A. Olympus had hidden more than $1.5 billion of investment losses through M&A transactions until the scandal exposure in 2011. One of the typical legal cases is Hewlett-Packard (hereafter HP) scandal. HP recognized goodwill value of $6.4 billion which is 5% in total assets by acquired Autonomy (Telecommunication Company in U.K.) after acquiring Autonomy (Telecommunication Company in U.K.) in 2011. HP recorded $8.8 billion of the impairment loss of Autonomy’s goodwill in 2012. These types of scandals are usually revealed by bankruptcy, anonymous reporting, supervisor monitoring, and etc. Until the scandals are revealed, we cannot identify whether managers did the window dressing in their financial statements or not. Even if we identify manager’s manipulation as legal bounds, some manipulation might be illegal. In addition, a manager could shift a legal manipulation to an illegal manipulation. The accounting area calls legal manipulation as “earnings management” and illegal manipulation as “accounting fraud” or “window dressing”. Perols and Lougee [2] showed that fraud companies were more active in earnings management than non-fraud companies in previous fiscal years. Our study explores links between earnings management and accounting fraud through case study. In particular, we focused on M&A deals. Accounting for acquired goodwill has been subject to considerable debate for at least the past 50 years [1]. As mentioned above, managers are likely to manipulate accounting figures through accounting procedures for M&A. Those manipulations can have a huge impact on their financial statements.

Methodologies-Case Studies

This study used two case studies to explore the accounting manipulation through M&A transactions. The first case is the scandal of Olympus Corporation (hereafter Olympus) which is one of the most famous accounting frauds. At first, we survey the summary of the Olympus scandal and the scheme. We mainly investigate the role of goodwill accounting under the scheme. This case will suggest the transition from its earnings management to the accounting fraud and the relationship between them. The second case is the unintentional error caused by HP. HP recorded $8.8 billion of the impairment loss of goodwill after the detection of Autonomy’s fraud. HP treated goodwill in the appropriate way. However, this case raised a doubt about the management decision and the accounting process.

In next section, we explain what logic of accounting manipulation is and why managers tend to utilize M&A deals to control companies’ performance.

Theory of Manipulation

Many previous studies have already suggested that managers have an incentive to manipulate a financial result meeting their earnings targets. Managers tend to manipulate company performance through accounting procedures of an economic transaction and events. Accounting manipulation occurs when managers manipulate economic transactions or events to record them in financial reporting. “Generally...
Accepted Accounting Principles (GAAP) allows managers to choose from various methods when they prepare financial statements. While earnings management is a discretionary behavior within the framework of the GAAP, accounting fraud is a discretionary behavior beyond the framework of the GAAP. Most previous studies have been clearly separated into the two behaviors. However, limited studies showed that earnings management may constitute accounting fraud. For example, Perols and Lougee [2] suggested that earnings management has a link to accounting fraud. They used a sample of 54 fraud and 54 non-fraud firms in the U.S to explore this connection. They found that the likelihood of fraud is significantly higher for firms that have previously managed earnings. They also found that firms that meet or beat analyst forecasts or inflate reported revenue are more likely to be committing fraud. This result might be a link between earnings management and accounting fraud. Collapses of Enron Co. and WorldCom Co. are one of the most famous and the biggest bankruptcy cases in the United States. Enron Co. had kept huge debts off the balance sheets until the company went into collapse. Enron Co. utilized loopholes within the GAAP [3]. The audit firms of Arthur Andersen cooperated with this this manipulation. WorldCom Co. underreported line costs by capitalizing them and inflated revenue in profits and losses. Their accounting fraud had been revealed just before their bankruptcy. Figure 1 showed a relation between accounting fraud and earnings management. There is a gray zone between accounting fraud and earnings management. Whether a procedure in the gray zone is accounting fraud or earnings management depends on a supervisor’s judgment. The judgment may change with each case.

### Manipulation and M&A

#### Accounting procedures for M&A

If the value of an economic transaction is larger, its manipulatable value is also larger. M&A is one of the biggest deals in management decision. There are many accounting manipulation cases by M&A deals. Procedures of M&A deals are related to accounting standards for business combinations, goodwill and intangible assets. Accounting standards have progressed to a convergence between International Financial Reporting Standards (hereafter IFRS) and Statement of Financial Accounting Standards in the U.S. (hereafter SFAS) since 2002. Japanese Accounting Standards Setter (hereafter ASBJ) has accurately converged Japanese GAAP with IFRS since 2011. SFAS 141 and IFRS 3 define accounting procedures for business combinations. SFAS 141 and IFRS 3 have been adopted since 1st April, 2001 and 1st April 2004, respectively. These accounting standards prohibit the pooling-of-interests method. Managers must adopt the purchase method after adopting these standards [4,5]. Under the purchase method, managers must decide which companies is an acquirer or acquiree when a company merges or acquires with another company, while acquirer is a buyer in M&A deals, acquiree is a seller in the deals. The standards require an acquirer reevaluate all of an acquirer’s all assets and debts based on the fair value measurements. The buyer obtains control of the seller at the acquisition date. The fair value is defined as the price that would be received to sell assets or be paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value is made up one or more inputs. The most reliable indicator of fair value is quoted from an active market. When we can know a market price of the assets or liabilities (such as stock price), we use it as fair value. When this is not available, managers can use a valuation technique to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of observable inputs.

Large part of company assets and debts do not have a market price in an active market. As said above, the accounting standards for M&A require an acquirer to reevaluate the value of an acquirer’s assets and liabilities at the acquisition date. It is difficult for outside stakeholders (e.g. investors) to verify these values because an acquire basically use a valuation technique to evaluate them. In accordance with accounting standards, an acquirer recognizes an identifiable intangible asset of the acquiree at the acquisition. An identifiable intangible asset includes computer software, patents, copyrights, customer lists and marketing rights. Accounting standards prohibit adding internal intangible assets up as assets in the balance sheet because their values lack objective measurement. An acquirer must recognize the intangible assets in the accounting process of M&A if they are separable from the entity and can be sold to another entity.

#### Accounting procedure for purchased goodwill

Purchased goodwill arises when a company is purchased by another company. Figure 2 shows a formula to calculate goodwill [6]. Goodwill is the excess of the purchase price over the fair value of net assets and identifiable intangible assets. The financial accounting treats as goodwill the future economic benefits arising from business combinations (M&A).

As the Figure 2 shows, the goodwill cannot be directly measured. The accounting standards in the IASB (IAS38) and the FASB (SFAS 142) require only impairment testing for goodwill at least once a fiscal year and prohibit its amortization while the Japanese GAAP needs the impairment test and periodic amortization within 20 years period. As said above, the ASBJ has already completed a convergence with the IFRS. However, there are some differences between them. The treatment for goodwill is one of the differences. Only impairment testing for goodwill
means the value of goodwill continue to be on the balance sheet and is not expensed in the Profits and losses if goodwill is not impaired. This difference between IFRS, SFAS and the Japanese GAAP will change companies’ net income. For example, Japan Tobacco Co. (hereafter JT) voluntarily adopted IFRS in 2011. Net income of JT went up 82.8 billion which is 22% higher than that of Japanese GAAP. Table 1 showed JT’s trend of goodwill value and its amortization cost from 2009 to 2014. JT has voluntary adopted IFRS since 2011. Total assets to goodwill value has gradually increased in the period. Amortization costs heavily impacted JT’s net income before 2010. JT didn’t need to recognize impairment losses in a lump sum at the impairment date for goodwill. JT has goodwill impairment risk.

**Accounting procedure for M&A**

Watts discussed that the procedures of goodwill impairment based on SFAS 142 rely on unverifiable fair value and managing can control impairment losses. As said above, acquirers must reevaluate all assets and liabilities of acquirees by using fair value. The fair values are basically estimated by specific techniques and unobservable inputs. Outside stakeholder cannot verify the values. The lack of verifiability provides managers with the opportunity to manipulate their performance in financial reporting.

Companies have three opportunities for discretion in the accounting for goodwill. The first opportunity is decision of purchase price. When they decide the purchase price, the purchase price fully depends on management decision. Purchase price is directly related to the value of goodwill. The second one is measurement of goodwill value. They can manipulate goodwill value by controlling the fair value measurement for net assets and identifiable intangible assets. The third is procedure of goodwill after the acquisition date. Managers might avoid goodwill impairment losses by manipulating a judgment for impairment (Figure 3).

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Net Income before tax (A)</th>
<th>Amortization Cost (B)</th>
<th>GOODWILL (C)</th>
<th>Total Assets (D)</th>
<th>(C)/(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>262,143</td>
<td>105,470</td>
<td>1,453,961</td>
<td>3,879,803</td>
<td>37.5%</td>
</tr>
<tr>
<td>2010</td>
<td>276,054</td>
<td>97,394</td>
<td>1,387,397</td>
<td>3,872,593</td>
<td>35.8%</td>
</tr>
<tr>
<td>2011</td>
<td>280,497</td>
<td>91,089</td>
<td>1,147,816</td>
<td>3,571,927</td>
<td>32%</td>
</tr>
<tr>
<td>2012</td>
<td>441,355</td>
<td>105,470</td>
<td>1,453,961</td>
<td>3,879,803</td>
<td>37.5%</td>
</tr>
<tr>
<td>2013</td>
<td>509,355</td>
<td>97,394</td>
<td>1,387,397</td>
<td>3,872,593</td>
<td>35.8%</td>
</tr>
<tr>
<td>2014</td>
<td>636,203</td>
<td>91,089</td>
<td>1,147,816</td>
<td>3,571,927</td>
<td>32%</td>
</tr>
</tbody>
</table>

**Table 1: JT’s trend of goodwill value and amortization costs.**

Determinants of the purchase price are hot issues in academic studies. There are many studies from various areas. In particular, they focus on why managers tend to overpay when buying a target company. The acquisition price must be lower than the merger synergies. The less managers pay to the target company, the more advantage they get. Rational and sophisticated managers try to buy a company at a low price. Managers do not intentionally overpay with acquisition if they want to hide something and deceive someone through M&A, However, some of them paid high acquisition premiums in many cases.

Kim et al. [8] explored why managers are likely to pay too much for acquisitions. They used a sample of firms in the American banking industry from 1994 to 2005. The number of sample was 878 acquisitions that were made by 401 firms. They estimated the models using a cross-sectional time series technique by pooling the longitudinal panel data. Kim et al. [8] found that firms with a low growth opportunity pay greater premiums than firms with a high growth opportunity. Hayward and Hannbrick [9] focused on a manager’s emotion to explain overpayment for acquisition. They explored a relation between managers’ hubris and overpayment. They used a sample of firms in the American publicly traded firms which paid over $100 million with acquisitions in 1989 and 1999. The number of sample is 53 in 1989 and 59 in 1992. 1989 was boom year for M&A while 1992 was a through. They consider different economic environments to test robustness for their experiment. They found that four indicators of managers’ hubris: the acquiring company’s recent performance, recent media praise for the CEO, and a measure of the CEO’s self-importance and composite of these three factors. There was a positive correlation between managers’ hubris and premiums.

Gu and Lev [10] explored the relation between acquires’ overpricing shares and goodwill impairment losses. Their sample consists of all U.S. publicly traded firms that undertook mergers and acquisitions from 1990 to 2006. We include acquisitions of both U.S. and foreign enterprises, as well as acquisitions. The number of sample is 54,218. The number of bidder subsample which acquired companies in the period is 7,055 in the sample. They suggested that acquires’ overpriced shares provide managers with strong incentives to exploit the overpricing by acquiring business. It often occurs overpayment for acquisition. In particular they showed acquires’ overpriced shares positively correlated with the intensity of corporate acquisitions and the growth of goodwill value.

**ESMA report**

The European Securities and Markets Authority (ESMA) explored an overview of accounting practices related to impairment testing of goodwill. The sample is 235 European listed entities. The sample was selected through a two-step process to ensure representation of the largest European issuers with the most significant amount of goodwill, and a wide coverage of industries and balanced geographical representation across Europe. The report showed managers are likely to avoid recognizing impairment losses of goodwill, particularly in the financial services and telecommunication industry. The €790 billion of goodwill recognized in the 2010 IFRS financial statements. Even though 43% of the sample showed a market value below equity (book value) on December 2011, total impairment losses on goodwill in 2011 amounted to €40 billion. These losses are only 5% into total goodwill value in 2010 [6]. This report questioned managers used the appropriate assumptions.
to do goodwill impairment tests. As mentioned before, goodwill is not amortized after initial recognition in accounting for goodwill. When the carrying amount of asset exceeds the recoverable amount, the managers should reduce the carrying amount and recognize an impairment loss. Goodwill acquired in a business combination has to be tested for impairment at least on an annual basis. Goodwill impairment loss cannot be recovered until the recoverable amount is recognized after recognizing impairment losses. The ESMA report suggested the accounting for goodwill (IAS36) gave managers discretions to manipulate accounting figures. ESMA also found that approximately 10% of companies are not accordance with disclosure requirements of IAS 36.

**Case studies-Olympus Scandal**

**Increasing loss**

As mentioned above, managers have a incentive to meet their performance expectations. Managers manipulate their performance to avoid a decline in the value of their stocks, a downgrade of the company’s debt, debt covenant violations, and corporate bankruptcy. The Olympus scandal is one of the typical case for accounting fraud. Managers had hidden companies’ losses until it was revealed.

Olympus was founded in 1919 and one of the most famous and traditional camera brands. Its main products are precision machineries and instruments, digital cameras, medical endscopes.

The root for the scandal was an aggressive financial assets management after 1985 (the Japanese bubble period). This management caused the loss in the financial assets after 1990 (the collapse of bubble economy). Olympus started investing risky financial products to recover the loss. Ironically, this investment increased the loss of financial assets and the unrealized loss piled up to about 95 billion around 1998 [11, 12]. At that time, the Japanese juridiction are working to adopt the fair value accounting in 2001. Few limited employees at Finance Group with hired consultants started seeking a way to aoid disclosing the unrealized loss.

**Loss separation scheme**

They decided to use the measure (“Loss Separation Scheme”). Since 1998, Olympus started selling the financial instruments incorporating the unrealized loss at the book value to the funds who were not a consolidate entity. This enabled Olympus to transfer the unrealized loss to the funds. These funds are called “Receiver Fund”. The Receiver Funds got loans secured with some assets of Olympus from LGT [11]. They also had Olympus set up business investment funds to provide funds to the Receiver Funds. This scheme was concealed by the top management and selected executives over 10 years.

**Settlement of the loss**

However, they recognized that it is impossible to eliminate the loss, because the receiver funds must repay the loans to the bank and the money invested into the funds had to be reimbursed. Under the situation, they worked out a plan taking advantage of the accounting for business combinations to change the separated loss to goodwill as an asset in the Olympus’s balance sheet. The Figure 4 is a summary of the steps.

They had the Private Funds buy the three private small ventures. Olympus bought that shares for the price over 100 times as high as its actual value. The excess expenditure by overpricing was recognized as goodwill. This means that they succeed in moving the first unrecognized loss to an asset as goodwill. Moreover, because of the overpricing, the Receiver Funds got enough money to repay the loans. Consequently, the bank deposit of Olympus got unnecessary. The invested money was also reimbursed.

**The scandal**

At first, Olympus planned to amortize the goodwill gradually over 10 to 20 years under the accounting for business combinations. However, in 2009, KPMG AZSA LLC noted the necessity of impairment for the shares and goodwill of Altis, Humalabo, and NEWS CHEF. In response to it, Olympus recognized $77 billion of impairment loss of goodwill. Eventually, in 2011, a Japanese financial magazine, FACTA, exposed the facts concerning the apparently high payments for acquisitions by Olympus in an article. Michael Woodford, COO of Olympus, found this article, investigated the facts and also engaged PwC to confirm the facts. Finally, he became a central figure in exposing the Olympus scandal. However, a problem is that the scandal had would not been exposed at the time if he has not blown the whistle.

**Case studies Hewlett-Packard**

HP is an American multinational information technology corporation which provides hardware, software and services to consumers, small- and medium-sized businesses and large enterprises. HP acquired Autonomy (Telecommunication Company in U.K.) in 2011 and recognized goodwill value of $6.4 billion which is 5% in total assets. The deal valued Autonomy at $11.7 billion with a premium of around 79% over market price at the acquisition date. Autonomy overstated own revenues by adding the future service premium of around 79% over market price at the acquisition date. HP recognized an $8.8 billion impairment loss after the revelation of Autonomy’s accounting fraud. HP has admitted overpricing for acquisition of Autonomy. HP Chief Executive Officer Meg Whitman told that HP’s board relied on audited financials by Deloitte. On the other hand, she doesn’t explain why HP paid $11 billion for Autonomy. HP unintentionally mismanaged the Autonomy merger. This case isn’t illegal and is material omissions. Impairment testing alone approach might have an influence on HP’s mismanagement.

**Conclusion, Limitations and Implication**

We verified through the case studies the current accounting standards provide managers with discretion to handle companies’
performance. Managers can decide to the value of goodwill and control timing of goodwill impairment. Although the ESMA report shows the possibility that European issuers have not treated goodwill properly while the treatments were not illegal. The boundary between earnings management and accounting fraud is unclear. It is difficult for outside stakeholders to judge whether the accounting process for goodwill is proper or not. While HP’s case was unintentional mismanagement, the management caused a loss to shareholders. Managers have a broad discretion into the accounting for goodwill. This would lead to a high possibility that many companies poorly comply with the requirements of accounting. The biases have an impact on earnings quality. The study use only case studies. We need further investigation about this topic.

References

3. European Securities and Markets Authority (2013) European enforcers review of impairment of good will and other intangible assets in the IFRS financial statement.