Practitioner views of goodwill accounting under US GAAP

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Abstract

Purpose – Accounting standards for goodwill may intensify the agency conflict. Since auditors evaluate intangible asset valuations, this study examines to what extent being an auditor (including Big 4 auditors) and being female as indicators of professional skepticism and conservatism predict accounting professionals' critical views of goodwill accounting under US GAAP.

Design/methodology/approach – Statistical analyses of a survey of accounting professionals in the Pacific Northwest region of the United States.

Findings – The respondents' views are dispersed from trust in GAAP to views reflecting management opportunism in goodwill accounting. While being an auditor (including Big 4 auditors) does not predict a critical perception, being a female auditor is correlated with critical views to some extent.

Research limitations/implications – The survey was carried out in a limited geographical area and personal contacts were used to maximize the response rate, which may limit generalizability.

Practical implications – Standard setters can use the results to learn how practitioners perceive the current accounting standards for goodwill. The results provide users and preparers knowledge about potential pitfalls of goodwill accounting. Preparers could increase transparency to alleviate user concerns regarding managerial opportunism in goodwill accounting.

Originality/value – This paper extends the IFRS-based literature exploring practitioners' perceptions of accounting standards by focusing on goodwill accounting in the US GAAP environment. This study also contributes to the auditing literature by providing further evidence on how gender moderates an auditor's perception of accounting standards.

Keywords Auditors, Big 4, Gender, Goodwill accounting, US GAAP

Paper type Research paper

1. Introduction

Goodwill is a complex asset because it is future-oriented and inseparable from other assets (Huikku *et al.*, 2017). To improve the relevance of financial statements, SFAS 142 of US GAAP and IAS 36 of IFRS replaced the amortization of goodwill with fair values and impairment testing. However, management discretion in impairment testing may intensify the agency

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conflict (e.g. Ramanna and Watts, 2012; Li and Sloan, 2017). Hence, investors and auditors should pay close attention to the accounting treatment of goodwill assets (Chambers and Finger, 2011).

However, practitioners' perceptions of goodwill accounting standards have received little attention in the literature. Drawing on interviews of preparers and users of IFRS financial statements in Finland, Huikku *et al.* (2017) suggest that goodwill is arguably the single most important item to audit. Pajunen and Saastamoinen (2013; henceforth PS) survey Finnish auditors' perception of goodwill accounting under IFRS and find that while non–Big 4 auditors regard the current standards as conducive to earnings management, Big 4 auditors tend to have a more favorable view. Saastamoinen *et al.* (2018; henceforth SOPT) detect a similar pattern in a survey of Nordic financial analysts, but an analyst's Big 4 auditing background predicts a more critical view of the management's role in goodwill impairment testing. Frey and Oehler (2014) survey German Certified Public Accountants (CPAs) and show that CPAs view that current standards leave room for accounting policy to influence the reported value of intangibles, including goodwill. Moreover, a survey of Italian chief financial officers (CFOs) by Mazzi *et al.* (2016) indicates that CFOs regard goodwill accounting standards adaptable to management's needs and unable to limit creative accounting. Cheng *et al.* (2018) also probe practitioners' views of goodwill accounting under US GAAP. Their interviewees regard compliance with the current standards as requiring considerable resources from firms.

This paper presents a survey-based exploratory study of accounting professionals' perceptions of goodwill accounting under US GAAP. The focus is on auditors because they have an important role in evaluating intangible asset values, mitigating the agency conflict and certifying the quality of financial statements (Healy and Palepu, 2001). Given the professional skepticism that is part of an auditor's training (Nelson, 2009), auditors may have a more critical view of accounting standards based on fair value (PS, SOPT). For example, auditors become more conservative as estimation risk increases (Lennox and Kausar, 2017), which is related to the level of compliance with disclosures on goodwill (Mazzi *et al.*, 2017). Empirical studies also suggest that Big 4 auditors carry out higher-quality audits (e.g. Eshleman; Guo, 2014) and have a more conservative approach to accounting, especially in strict investor protection environments such as the United States (Francis and Wang, 2008). Furthermore, studies indicate that women are more conservative in their accounting choices (e.g. Peni; Vähämaa, 2010). Consequently, this study also examines whether a Big 4 auditing firm or being female is correlated with a practitioner's views of goodwill accounting standards.

Surveys of accounting professionals regarding accounting rules outside the treatment of goodwill have been conducted in various jurisdictions. Joshi *et al.* (2008) find that auditors differ from other accountants in their views relating to the implementation of global standards in Bahrain. However, Chand and White (2006) detect no correlation between accounting professionals' backgrounds (e.g. gender) and their judgments of IFRS accounting standards in Fiji. Kumarasiri and Fisher (2011) report that Sri Lankan auditors regard fair value accounting improving the decision usefulness of accounting statements, but verifiability issues create challenges.

Using the methodology of PS and SOPT, a survey is conducted with accounting professionals in the Pacific Northwest region of the United States. As Bloomfeld *et al.* have noted (2016, p. 377), "surveys offer a great opportunity for contextualization, generating rich descriptive data about practitioners' beliefs and preferences." The present approach also makes it possible to compare the opinions of accounting professionals in IFRS and US GAAP regimes. This is important because empirical evidence is not directly comparable between IFRS and US GAAP environments (d'Arcy and Tarca, 2018).

The results suggest that differences exist between how accounting professionals perceive goodwill accounting in IFRS and US GAAP environments. While a pattern of either a more trusting or a more critical perception emerges in the former (PS, SOPT), views are more dispersed in the latter ranging from a trusting perception to ones reflecting a critical perception of management's role in goodwill accounting. Further, auditors, including Big 4 auditors, do not differ from other accounting professionals in how they perceive goodwill accounting. However, female auditors regard goodwill accounting as reducing the reliability of GAAP and as increasing the risk for earnings management. Taken together, the findings suggest that respondents' background has limited power in predicting perceptions of goodwill accounting.

This study contributes to the literature by shedding light on practitioners' views in the US market. Practitioners' views of goodwill accounting under US GAAP have received only scant attention in the literature (see Cheng *et al.*, 2018) dominated by archival studies or surveys conducted in the IFRS environment (e.g. PS; SOPT; Frey and Oehler, 2014; Mazzi *et al.*, 2016). It also adds to the literature on auditing by providing further evidence on how an auditor's background (e.g. Chand and White, 2006; Joshi *et al.*, 2008) and female gender in particular (Ittonen *et al.*, 2013) are associated with his/her judgment. As a practical contribution, this study's evidence on practitioners' views of goodwill accounting can also potentially be used to develop accounting standards and achieve convergence between US GAAP and IFRS. Comparing the results with related studies may be used to understand commonalities and differences between goodwill standards in US GAAP and IFRS (d'Arcy and Tarca, 2018).

2. Literature review

2.1 A brief history of goodwill accounting in the United States

Garcia (2007) divides goodwill accounting history in the United States into four periods. The preregulatory period of 1880–1929 incorporated development of goodwill in the context of economic growth and rising price levels (Garcia, 2007). In the early part of the period, goodwill was not considered as a true asset and thus, goodwill was to be deducted from revenues (Ding *et al.*, 2008). Later in the period, however, the useful life of goodwill was debated between two schools of thought (Garcia, 2007). One of them regarded goodwill as a permanent asset requiring an immediate write-off against capital, while the other advocated for a gradual reduction of the asset against earnings (Garcia, 2007). Contemporary practitioners and companies favored permanent retention of goodwill because it reflected the optimistic view of business valuations and growth prospects (Garcia *et al.*, 2018). However, the absence of formal rules also resulted in arbitrary asset write-ups and expense capitalization, which were used to reappraise corporate assets (Garcia, 2007).

In 1929, the Great Depression ushered in the period defined by the regulations of the Association of International Accountants (AIA) (Garcia, 2007) [1]. The financial collapse revealed a disconnect between the book and market values of corporations (Garcia *et al.*, 2018). Consequently, goodwill was regarded as an unstable item (Ding *et al.*, 2008). Hence, this period became characterized by conservatism and reduction of accounting treatments with fixed asset valuations based on the cost basis rather than market value (Garcia, 2007). AIA restricted the number of accounting treatments of goodwill with a series of regulations (Garcia, 2007). In 1944, Accounting Research Bulletin (ARB) No. 24 classified intangible assets into those with a finite useful life requiring amortization against earnings and into those with indeterminate useful life requiring retention at cost (Garcia *et al.*, 2018). In 1953, write-offs were forbidden in ARB No. 43.

The next period defined by the Accounting Principles Board (APB) began in 1959 (Garcia, 2007). While continuous prosperity with rising asset valuations and monetary instability characterized this period, arbitrary asset write-ups were strongly opposed (Garcia, 2007). In

1970, APB Opinion No. 17 eliminated permanent retention and amortized cost became a measurement basis for all intangible assets with the useful life of goodwill extending to 40 years (Garcia *et al.*, 2018). During this period, the pooling-of-interest method, in which assets of a business combination were pooled together and retained in the new entity's balance sheet at their original book value, was used to avoid recognition of goodwill and amortization issues (Garcia *et al.*, 2018).

The final period defined by the Financial Accounting Standards Board (FASB) covers 1973–2001 (Garcia, 2007). The internationalization and robust growth of capital markets together with the influence of foreign accounting practices shifted the focus back on permanent retention (Garcia, 2007; Garcia *et al.*, 2018). During the period, issues related to goodwill included identifying and separating intangibles and a progressive switch to fair value (Garcia, 2007). There was a growing criticism toward the long amortization period of goodwill, which burdened earnings and dividends (Davis, 1992; Garcia, 2007; Ding *et al.*, 2008). Hence, the support for the return of permanent retention mounted culminating in the issuance of SFAS 141 and SFAS 142 in 2001 (Davis, 1992; Garcia, 2007; Garcia *et al.*, 2018).

2.2 Goodwill impairment testing and management behavior

The current goodwill accounting standards put managers in a unique position to estimate the fair value of goodwill. Determining fair value relies on estimates of future cash flows and discounting them to their present value with a predetermined discount rate, which gives management considerable latitude in the choice of inputs used in goodwill impairment testing. These estimates could be used to convey management's private information on future cash flows to investors (Ramanna and Watts, 2012). SFAS 142 has incentivized managers to acquire more information, which has improved the information set at their disposal in corporate decisions and management forecasts (Cheng *et al.*, 2018). Hence, goodwill accounting can produce relevant information to equity and credit markets (Wen and Moehrle, 2016).

However, fair value often reflects subjective opinions, observations and judgments of market conditions (Majercakova and Skoda, 2015). For instance, a discount rate or a growth rate that artificially inflates the present value of future cash flows can be used to avoid goodwill impairments (Carlin and Finch, 2009; Avallone and Quagli, 2015). Accounting discretion is used in allocating goodwill to reporting units, and cash flow projections are a combined product of management's decisions and an unpredictable business environment (Ramanna and Watts, 2012). Moreover, the estimated fair value of non-goodwill assets and liabilities is also unverifiable (Chambers Finger, 2011). Thus, the fair value of goodwill is difficult to verify and audit because it is a function of a forecast of management's future actions, including how they conceptualize and plan to implement the firm's strategy (Ramanna and Watts, 2012). Consequently, it may be difficult to apply relevant accounting information to goodwill (Bens *et al.*, 2011).

Goodwill accounting can also be used to serve management's private incentives, as agency theory suggests (Ramanna and Watts, 2012; Li and Sloan, 2017). Long-serving managers might be reluctant to write off goodwill (Beatty and Weber, 2006; Ramanna and Watts, 2012). Indeed, goodwill impairment charges tend to be larger in companies where the CEO's tenure is shorter (Masters-Stout *et al.*, 2008), and a goodwill write-off often follows a change in CEO (AbuGhazaleh *et al.*, 2011; Saastamoinen and Pajunen, 2016). Moreover, empirical evidence suggests that impairment charges are lumped together to facilitate an earnings bath (Sevin and Schroeder, 2005; AbuGhazaleh *et al.*, 2011; Saastamoinen and Pajunen, 2016). Managers also have an incentive to avoid a write-off of goodwill if it will have an adverse impact on executive compensation (Beatty and Weber, 2006; Ramanna and Watts, 2012). Furthermore, concerns

over debt covenant violations may give managers additional incentives to seek ways to avoid writing down goodwill (Zang, 2008; Ramanna and Watts, 2012).

2.3 Auditors and financial reporting

Demand for auditing results from the agency conflict between owners and hired managers (Jensen and Meckling, 1976). Audited financial statements mitigate the information asymmetry that results from the separation of ownership and control in large corporations (Fama and Jensen, 1983). Hence, auditors have an important role in enhancing the credibility of financial reporting (Healy and Palepu, 2001).

Auditor characteristics, particularly professional skepticism, can influence audit quality. Professional skepticism reflects "a heightened assessment of the risk that an assertion is incorrect, conditional on the information available to the auditor" (Nelson, 2009, p. 4). Professional skepticism is part of an auditor's training and can manifest itself as accounting conservatism (Brown-Liburd *et al.*, 2013) to reduce the risk of earnings management (Zhong and Li, 2017) and the risk that a material error is left undetected in a client's financial statements (McMillan and White, 1993). Auditors are specifically required to exercise professional skepticism in their audit tasks (AICPA, 2018).

Regarding goodwill accounting, auditors are required to ensure that companies report the "true" value of goodwill (Huikku *et al.*, 2017). As decisions regarding goodwill impairment are being made, auditors must strike a balance between serving the interests of their clients and fulfilling the information requirements of financial markets and the users of financial statements (Ronen, 2008). Professional skepticism and strong knowledge are needed when auditors evaluate fair values provided in financial statements (Martin *et al.*, 2006). The Public Company Accounting Oversight Board (PCAOB, 2017, p. 278) specifically guides auditors to adopt "an attitude of professional skepticism" when they evaluate accounting estimates.

The aforementioned survey evidence indicates that auditors are far from unanimous regarding the merits of fair value accounting in IFRS environments. This study focuses on practitioners' views in the US GAAP environment. The first research question is:

RQ1. Are auditors critical of the current goodwill accounting standards?

A stream of auditing research has focused on audit firm size as an indicator of audit quality. Audit theory predicts that large auditing firms strive for high-quality audits because they face a greater risk to their reputation with low audit quality (DeAngelo, 1981). The audit quality of the largest audit firms – the Big 4 – has been scrutinized with mixed results. While firms audited by large firms exhibit more conservatism in their reporting (e.g. Francis and Krishnan, 1999), the audit quality of Big 4 auditors may be more perceived than actual (e.g. Boone *et al.*, 2010) or is more of a consequence of a litigious environment (Khurana and Raman, 2004). Further, a higher level of investor protection has been positively associated with the Big 4 audit quality (Francis and Wang, 2008). More recent studies suggest that better audit quality is associated with Big 4 firms (e.g. Eshleman and Guo, 2014; Berglund *et al.*, 2018). In the context of goodwill accounting, clients of Big 4 auditors appear to exhibit a higher compliance with goodwill impairment testing (Bepari and Mollik, 2013). Thus:

RQ2. Are Big 4 auditors critical of the current goodwill accounting standards?

2.4 Gender and financial reporting

Another avenue of research has investigated gender differences in financial reporting and audit quality. Women exhibit greater risk aversion in financial decisions than men (e.g. Charness and Gneezy, 2012), which, in turn, may be associated with more conservative accounting choices (Lubberink and Huijgen, 2001). For instance, female chief financial officers exhibit a more

conservative approach to financial reporting (Peni and Vähämaa, 2010; Francis *et al.*, 2015), and a female presence among senior management improves earnings quality (Krishnan and Parsons, 2008). Moreover, female auditors appear to be more conservative (Niskanen *et al.*, 2011). Studies also point to a correlation between higher audit quality and female auditors because female auditors constrain earnings management (Ittonen *et al.*, 2013), issue going concern opinions more often (Hardies *et al.*, 2016) and improve transparency (Pucheta-Martínez *et al.*, 2016). However, female auditors may provide lower audit quality in a stringent institutional and regulatory framework (Hossain *et al.*, 2018). Hence:

RQ3. Are female accounting professionals, including auditors, critical of the current goodwill accounting standards?

3. Research design

3.1 Empirical model

The following regression model is estimated to assess empirical relations between respondents' perceptions of the current goodwill accounting standards and their demographic background variables.

$$\begin{aligned} DEP\_VAR = {} & \beta_0 + \beta_1 AUDITOR + \beta_2 BIG4 + \beta_3 FEMALE + \beta_4 FEMALE \times AUDITOR \\ & + \beta_5 FEMALE \times BIG4 + \beta_6 AGE + \beta_7 AGE^2 + \beta_8 EXPE + \beta_9 EXPE^2 \\ & + \beta_{10} INDU + \beta_{11} INDU^2 + \beta_{12} FINWORK + \beta_{13} HIGHER + \beta_{14} NON\_BUS \\ & + \beta_{15} NON\_US + \varepsilon \end{aligned} \tag{1}$$

The dependent variables (*DEP_VAR*) measure a respondent's perception of goodwill accounting and are obtained from principal component analysis (PCA). The following dummy variables are the focus variables: *AUDITOR* (an auditor), *BIG4* (a respondent who reports working for a Big 4 firm), *FEMALE* (a female respondent), *FEMALE×AUDITOR* (a female auditor) and *FEMALE×BIG4* (a female Big 4 auditor). If the estimated coefficient of a focus variable is statistically significant, it indicates that being an auditor, being a Big 4 auditor, being a female or a combination of these factors predicts the respondent's perception of goodwill accounting.

Several control variables are used in the regression. These include the respondent's age (*AGE*), experience (*EXP*) and exposure to different industries (*INDU*) and their squared terms, because they may be associated with a respondent's perception of goodwill accounting (SOPT). The respondent's education level may also predict how critical a respondent is toward fair value accounting (King *et al.*, 1990). Hence, a dummy variable for education levels beyond the undergraduate degree (*HIGHER*) is included. Dummy variables are included for holders of a nonbusiness degree (*NON_BUS*), non-US residents (*NON_US*) and for those who have experience in working in or consulting the financial administration of a listed company (*FINWORK*) (Cheng *et al.*, 2018; PS).

3.2 Data and methods

The data were collected using a survey that was e-mailed, mailed or personally given to accounting professionals residing in the Pacific Northwest region, with most respondents located in Washington and some in Idaho, Oregon and California. Professional accountants, CPAs and financial analysts were targeted. Names of the recipients were obtained from lists of alumni, active professionals and past contacts known to the authors in the community and through interpersonal networking. Surveys were carried out between October 1, 2013 and

January 10, 2014. Of 500 surveys, 290 were returned (response rate 58%). With e-mail surveys, one follow-up message was sent.

The survey questionnaire is a slightly modified version of the one used in PS and SOPT, bearing more resemblance to the latter version of the survey. To make it appropriate for the US market, an item measuring a respondent's preference for IFRS or the local GAAP was excluded. Consequently, the survey questionnaire consists of 15 statements measured on a five-point Likert scale (1 = "disagree"; 5 = "agree"). Furthermore, biographical background information on the respondents was also gathered. The statistical properties of these data are described using response frequencies (survey statements) and descriptive statistics (background variables).

More elaborate statistical analyses are carried out in two phases. First, the PCA extracts principal components from the survey statements. Since it cannot be precluded that the resulting variables are uncorrelated with each other, oblique rotation is used. The reliability of the extracted components is assessed using Cronbach's alpha. Second, ordinary least squares (OLS) regression analyses are run using the components as dependent variables.

4. Results

4.1 Descriptive statistics of survey statements

Table 1 reports response frequencies (relative and absolute) together with descriptive statistics and *t*-tests of the 15-item survey questionnaire. In general, the response frequencies are tilted toward agreement, with the respondents predominantly "agreeing" or "somewhat agreeing" with the statements. This is illustrated by the *t*-tests applied on each statement that test whether the mean score is statistically significant from a neutral response (3).

Examining the average scores of individual statements reveals some patterns in responses. On the one hand, the highest scores relate to questions probing the respondents' views on fair value accounting (S1, S2). On the other hand, the respondents tend to agree with statements relating to goodwill assets being used for earnings management (S10, S15) and to a purposeful avoidance of goodwill impairment charges (S5). However, the lowest scores, which are not statistically significant from the neutral response (S3, S6), relate to statements concerning the role of executive compensation in goodwill impairment decisions.

4.2 Principal component analysis

Table 2 shows the PCA results, with four distinct lines of thought emerging from the survey statements. The results suggest that the extracted components are reasonably consistent with a highest alpha of 0.705 and lowest of 0.616, which is regarded as acceptable (Hair *et al.*, 2006). Altogether, the solution explains 64% of the variance, which is acceptable in social sciences (Hair *et al.*, 2006). The obtained solution differs from both PS and SOPT, where the respondents expressed either a more skeptical or a more trusting view of goodwill accounting standards under IFRS.

Component 1 is labeled "*Reliable GAAP*" (alpha = 0.653). According to this line of thought, valuation based on US GAAP is reliable and improves the reliability of financial information.

Component 2 is labeled "*Unreliable goodwill*" (alpha = 0.616). This line of thought views executive compensation as influencing goodwill impairment decisions and impairment testing under current US GAAP as being unreliable.

Component 3 is labeled "*Increasing earnings management*" (alpha = 0.645). According to this line of thought, the current goodwill accounting rules enable and lead to increasing earnings management. Moreover, this line of thought assumes that goodwill impairment

Statement	Relative frequencies (%) 1	2	3	4	5	Mean	S.D.	*N*	*t*-statistic
S1: "In my opinion, valuation based on expected cash flows in US GAAP financial statements is a good practice."	2.1	10	10	45	32.9	3.97	1.01	289	16.33***
S2: "Determining the fair value of assets in the balance sheet is a good practice."	1.7	9.7	10	35.2	43.5	4.09	1.04	290	17.85***
S3: "Management does not recognize a goodwill impairment loss if earnings have an impact on executive compensation."	17.7	13.5	27.7	29.8	11.4	3.04	1.26	289	0.540
S4: "CEOs are unwilling to take a goodwill impairment charge if it worsens his/her position in the company."	13.6	14	20.3	35.3	16.8	3.28	1.28	286	3.70***
S5: "Companies tend to avoid goodwill impairment losses if possible."	3.1	6.6	21.7	36.6	32.1	3.88	1.03	290	14.487***
S6: "Executive compensation does not influence the decision to impair goodwill in listed companies."	9.7	28.1	36.8	14.2	11.1	3.01	1.16	288	0.15
S7: "Valuation based on estimates made by management in US GAAP financial statements is not reliable."	11.4	24.2	24.9	31.1	8.3	3.44	1.03	289	7.26***
S8: "The rules of goodwill accounting under US GAAP improve information content of financial statements."	5.6	11.1	30.6	39.6	13.2	3.52	0.99	288	8.91***
S9: "Impairment testing that complies with US GAAP is reliable."	0.4	14.5	25.6	42.6	14.5	3.43	0.97	289	7.54***
S10: "The rules of goodwill accounting under US GAAP enable earnings management."	4.5	8.7	38.5	35.8	12.5	3.92	1.02	288	7.524***
S11: "Companies are afraid of how investors react to goodwill impairment charges."	2.4	8.3	17	39.1	33.2	3.59	0.97	289	15.31***
S12: "Impairment testing enables excessive discretion in valuation."	2.1	11.8	27.4	42	16.7	3.62	0.92	288	11.44***
S13: "The rules of goodwill accounting under US GAAP may lead to inconsistencies in the financial information provided in financial statements."	1.8	10.5	26.3	46.3	15.1	3.16	1.12	285	2.41**
S14: "A goodwill impairment loss is recognized when the reported earnings would have been negative in any case."	9.9	14.5	37.1	26.5	11.7	3.32	0.99	283	5.54***
S15: "The rules of goodwill accounting under US GAAP lead to increasing earnings management."	4.9	12.3	39.8	32	10.9	3.97	1.01	284	16.18***

Table 1.
Survey statement frequencies and descriptive statistics

Note(s): Measurement scale: 1 = Disagree; 2 = Somewhat disagree; 3 = Undecided; 4 = Somewhat agree; 5 = Agree. The column "*t*-statistic" provides a one-sample *t*-test examining whether the mean value of responses differs from the neutral response "3". *** *p*-value < 0.01, ** *p*-value < 0.0.05, * *p*-value < 0.1

Component	Alpha	Lambda	Variance explained (%)	Component loading
Reliable GAAP (*REL_GAAP*)	0.653	2.840	0.166	
In my opinion, valuation based on expected cash flows in US GAAP financial statements is a good practice				0.661
Determining the fair value of assets in the balance sheet is a good practice				0.627
The rules of goodwill accounting under US GAAP improve information content of financial statements				0.754
Impairment testing that complies with US GAAP is reliable				0.643
Unreliable goodwill (*UNREL_GW*)	0.616	2.284	0.164	
Valuation based on estimates made by management in US GAAP financial statements is not reliable				0.556
Companies are afraid of how investors react to goodwill impairment charges				0.612
Impairment testing enables too much discretion in valuation				0.754
The rules of goodwill accounting under US GAAP may lead to inconsistencies in the financial information provided in financial statements				0.760
Increasing earnings management (*INC_EM*)	0.647	1.199	0.159	
The rules of goodwill accounting under US GAAP enable earnings management				0.794
A goodwill impairment loss is recognized when the reported earnings would have been negative in any case				586
The rules of goodwill accounting under US GAAP lead to increasing earnings management				0.769
Opportunistic management (*OPP_MGMT*)	0.705	1.106	0.152	
Management does not recognize a goodwill impairment loss if earnings have an impact on executive compensation				0.826
A CEO is unwilling to take a goodwill impairment charge if it worsens his/her position in the company				0.840

Note(s): $N = 271$; Rotation: Promax; Normalization: Kaiser; Bartlett's test of sphericity: $\chi^2 = 668.536$ (p-value < 0.001); Kaiser–Meyer–Olkin measure of sampling adequacy: 0.720

Table 2. Principal component analysis

losses are recognized when the reported earnings would have been negative in any case, such as in an earnings bath.

Component 4 is labeled "*Opportunistic management*" (alpha = 0.705). This line of thought regards management as behaving opportunistically because goodwill impairment losses are not recognized if it will have an adverse impact on executive compensation. Consequently, a CEO is unwilling to take a goodwill impairment charge if it affects his/her position in the company negatively.

For all four components, Bartlett scores (*REL_GAAP, UNREL_GW, INC_EM* and *OPP_MGMT*, respectively) are used as dependent variables in the OLS regression analysis.

4.3 Descriptive statistics of background variables

Descriptive statistics obtained from the respondents' biographical information are reported in Table 3. The data show that the average age of the respondents is 37 years. The average respondent has nine years of work experience as an accounting professional with exposure to

Variable	Description	Obs	Mean	S.D.	Min	Max
REL_GAAP	Bartlett score of Component 1	272	0	1	−3.48	2.03
UNREL_GW	Bartlett score of Component 2	272	0	1	−3.43	2.14
INC_EM	Bartlett score of Component 3	272	0	1.01	−3.21	2.61
OPP_MGMT	Bartlett score of Component 4	272	0	1.01	−2.24	2.13
AUDITOR	1 for auditors and 0 otherwise	290	0.4	0.49	0	1
BIG4	1 for Big 4 auditors and 0 otherwise	291	0.15	0.36	0	1
FEMALE	1 for female respondents and 0 otherwise	292	0.48	0.5	0	1
FEMALE×AUDITOR	1 for female auditors and 0 otherwise	290	0.17	0.38	0	1
FEMALE×BIG4	1 for female Big 4 auditors and 0 otherwise	291	0.08	0.26	0	1
AGE	Age (years)	251	36.79	12.35	20	77
EXPE	Experience in accounting (years)	246	9.19	9.98	0	48
INDU	Exposure to various industries (0–10)	292	1.84	1.55	0	10
FINWORK	1 if working or consulting in the financial administration of a listed company and 0 otherwise	280	0.42	0.49	0	1
HIGHER	1 for the respondents holding a master's degree, MBA or PhD and 0 otherwise	292	0.23	0.42	0	1
NON_BUS	1 for the respondents holding a degree other than a business degree and 0 otherwise	292	0.07	0.26	0	1
NON_US	1 for the respondents who do not reside in the United States and 0 otherwise	291	0.03	0.17	0	1

Table 3. Descriptive statistics of the variables used in OLS regression analyses

two industries. Nearly half of the respondents are female, and only 3% are nonresidents. 23% report having a master's degree, MBA or PhD as their highest level of education. Only 7% have a degree in a field other than business. Meanwhile, 40% have a background in auditing and 15% have worked for a Big 4 auditing firm. Over 40% have experience working for or consulting for the financial administration of a listed company.

4.4 Regression analyses

Table 4 shows the results of OLS regression analyses. In cases where the Breusch–Pagan test indicates the presence of heteroskedasticity, robust standard errors are used. Each model uses the same set of covariates.

Reliable GAAP. The estimated coefficient of *FEMALE* indicates that female respondents are more likely to have a favorable perception of the reliability of GAAP than male respondents. However, a marginally significant coefficient on *FEMALE×BIG4* suggests that female Big 4 auditors regard GAAP as less reliable. Regarding control variables, the respondent's age suggests that older respondents trust GAAP more than younger ones do.

Unreliable goodwill. The positive coefficient of *FEMALE×AUDITOR* predicts a less favorable perception of the current goodwill accounting standard for respondents who are both female and auditors. As for the control variables, industry exposure implies that the respondents who have observed accounting practices in various industries have less trust in the reliability of goodwill accounting. In addition, the marginally significant positive coefficient of *HIGHER* suggests that the respondents with more formal education are more critical toward the current goodwill accounting standards.

Increasing earnings management. The negative coefficients of *AUDITOR* and *FEMALE* indicate that being either an auditor or being female is negatively correlated with having a perception of the current goodwill accounting standards leading to increased earnings

Dependent variable	*REL_GAAP*			*UNREL_GW*			*INC_EM*			*OPP_MGMT*		
Variable	Coef.	S.E.^{R}	*p*-value	Coef.	S.E.^{R}	*p*-value	Coef.	S.E.	*p*-value	Coef.	S.E.^{R}	*p*-value
AUDITOR	−0.314	0.240	0.192	−0.389	0.241	0.108	−0.698***	0.214	0.001	−0.270	0.198	0.174
BIG4	0.338	0.296	0.254	−0.156	0.425	0.714	0.115	0.300	0.701	−0.056	0.300	0.852
FEMALE	0.388**	0.154	0.013	−0.261	0.187	0.164	−0.416**	0.182	0.023	−0.162	0.183	0.378
FEMALE×AUDITOR	0.011	0.340	0.973	0.706**	0.327	0.032	0.552*	0.318	0.084	0.056	0.337	0.867
FEMALE×BIG4	−0.784*	0.455	0.086	0.265	0.462	0.567	−0.056	0.432	0.897	−0.199	0.467	0.671
AGE	−0.098**	0.041	0.019	0.019	0.049	0.702	−0.015	0.048	0.748	0.062	0.046	0.184
AGE2	0.001**	0.000	0.019	0.000	0.001	0.847	0.000	0.001	0.794	−0.001	0.001	0.291
EXPE	0.009	0.026	0.737	0.009	0.026	0.733	0.004	0.026	0.891	−0.044*	0.023	0.055
EXPE2	0.000	0.001	0.757	0.000	0.001	0.643	0.000	0.001	0.820	0.001**	0.001	0.043
INDU	−0.026	0.109	0.814	−0.177	0.109	0.107	−0.139	0.120	0.248	−0.096	0.104	0.358
INDU2	0.014	0.013	0.291	0.035***	0.013	0.007	0.030*	0.016	0.066	0.020*	0.011	0.083
FIN_WORK	0.017	0.155	0.914	0.059	0.172	0.730	−0.153	0.158	0.335	−0.138	0.168	0.412
HIGHER	0.003	0.180	0.985	0.324*	0.189	0.088	−0.154	0.173	0.376	0.003	0.193	0.989
NON_BUS	0.003	0.207	0.987	−0.093	0.286	0.747	−0.315	0.345	0.362	−0.468	0.317	0.142
NON_US	0.363	0.221	0.102	0.231	0.363	0.525	0.408	0.430	0.344	1.000**	0.404	0.014
CONSTANT	1.907**	0.770	0.014	−0.330	0.932	0.724	0.899	0.889	0.313	−0.956	0.871	0.274
Obs	194			194			194			194		
F-statistic	2.08**		0.013	2.23***		0.007	1.70*		0.054	1.90**		0.026
R^2	0.129			0.092			0.052			0.094		

Note(s): [a]Robust standard errors used. *** *p*-value < 0.01; ** *p*-value < 0.05; * *p*-value < 0.1. These models were estimated using maximum likelihood estimation that allows for estimating parameters with missing values. The results were qualitatively similar to the ones presented here, which suggests that a bias resulting from missing observations is not of a great concern

Table 4.
OLS regression analyses

management. However, the positive coefficient of *FEMALE×AUDITOR*, which is marginally significant, suggests that female auditors are more likely to have a perception of the current goodwill accounting standards as leading to increased earnings management. Regarding control variables, there is indication that exposure to more industries predicts higher scores of *INC_EM*.

Opportunistic management. The estimated coefficients suggest that focus variables are uncorrelated with the dependent variable. As for the control variables, the results suggest that the more experience a respondent has as an accounting professional, the more likely he/she is to view current accounting standards for goodwill as resulting in greater management opportunism. Non-US citizens are also more likely to share this view.

5. Conclusion

5.1 Discussion

This study contributes to the literature examining practitioners' views of accounting standards (e.g. PS, SOPT, Chand and White, 2006; Joshi *et al.*, 2008; Mazzi *et al.*, 2017). It is among the first to report survey-based evidence of accounting professionals' perceptions of goodwill accounting under US GAAP (see also Cheng *et al.*, 2018).

The analysis of the survey gives four lines of thought: *increasing earnings management*, *opportunistic management*, *unreliable goodwill* and *reliable GAAP*. This compares to the two (critical and trusting) established in PS and SOPT in countries that have adopted IFRS. Hence, accounting professionals in the US GAAP regime have more varied views of goodwill accounting than do their peers in IFRS environments.

An examination of predictors of the lines of thought shows that neither auditors nor Big 4 auditors in this survey do not exhibit a critical perception of the current goodwill accounting standards. The divergence of these results from the prior studies (PS; SOPT; Frey and Oehler, 2014) may reflect the finding that CPAs have been found to be less skeptical than their uncertified colleagues (Shaub and Lawrence, 1996). Further, auditors have competing incentives to balance the interests of the users of financial reports with the interests of the client (Ronen, 2008).

This study finds gender-related differences in opinions of goodwill accounting. While female accountants are generally more conservative (e.g. Francis *et al.*, 2015), the results of this survey indicate that their views of goodwill accounting do not reflect conservatism. Consistent with previous studies, which suggest that female auditors exhibit greater conservatism (e.g. Niskanen *et al.*, 2011; Ittonen *et al.*, 2013), however, there is some indication of female auditors, including Big 4 auditors, exhibiting critical views of goodwill accounting.

These results, which are different from the findings presented in previous studies, could be from the differences between US GAAP and IFRS. For instance, it has been argued that IFRS provides more latitude for earnings management than US GAAP (Lin *et al.*, 2012; Evans *et al.*, 2015). Furthermore, US firms appear to be more willing to write off goodwill in response to adverse economic conditions than their European counterparts (André *et al.*, 2016). Thus, auditors' responses in this study may reflect a trust in US GAAP, even though academics have provided empirical evidence consistent with management opportunism facilitated by the goodwill accounting standards in US GAAP (e.g. Sevin and Schroeder, 2005).

5.2 Practical implications, limitations and future research

The findings have practical implications for regulators, preparers and users of financial statements. It is important that standard setters learn how practitioners perceive the strengths and weaknesses of the current goodwill accounting standards. The results indicate that practitioners do not perceive fair value accounting as problematic under US GAAP.

However, there are certain aspects related to management discretion in goodwill accounting, which may require further scrutiny to allay concerns about their possible misuse. To this end, preparers should increase transparency of the inputs used in goodwill impairment testing, which might alleviate concerns about managerial opportunism. Interestingly, accounting professionals' perception of goodwill accounting appears to be less problematic than what research has suggested. Hence, the findings presented in goodwill studies, which may be controversial, should be communicated to users and preparers working in the field so that accounting professionals can be aware of potential pitfalls in goodwill accounting.

There are some limitations to this study. First, the survey instrument was kept short to maximize the response rate. Thus, an expanded survey instrument, which would allow for more fine-grained measurements, could provide additional insights. Second, the survey was collected from a limited geographical area, and the sampling method was not random. These two constraints limit how much can be extrapolated from the results as neither the geographical area nor the respondents can be regarded as a representative sample of the US market. Finally, while the survey's response rate was relatively high, a larger sample size could improve the reliability of the statistical analyses. Therefore, in future studies the survey could be expanded to cover other regions of the United States as well as other countries to better understand this area in accounting.

Note

1. AIA was founded in the United Kingdom in 1928 as a global accountancy body that provides qualifications for members and students worldwide (King and Case, 2017).

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