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Audit committee financial expertise and earnings quality: A meta-analysis☆

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ABSTRACT

Since the implementation of the Sarbanes–Oxley Act (SOX), a plethora of research has examined financial experts' monitoring on audit committees of financial reporting quality. However, the literature has found mixed evidence. This present study's objective is to reconcile through meta-analysis the results of 90 studies with 165,529 firm-year observations concerning the relationship between audit committee financial expertise and earnings quality. The results show that audit committee financial expertise has a positive relationship with earnings quality and that accounting financial experts have a stronger relationship with earnings quality than non-accounting financial experts. Moreover, corporate governance systems, International Financial Reporting Standards (IFRS), and SOX moderate the relationship between audit committee financial expertise and earnings quality. Additional moderators of this relationship are different proxies of earnings quality and audit committee financial expertise, financial experts' independence and busyness, the external auditor's role, and publication quality. This study provides implications for regulators in terms of tightening the definition of audit committee financial expert and the need for at least two financial experts. Further, the study identifies opportunities for future research. Specifically, we provide suggestions for the improvement of financial experts' effectiveness and the expansion of existing research. We also highlight emerging research areas.

1. Introduction

Audit committee financial expertise is the most prominent feature of audit committee effectiveness that has caught the attention of regulators in recent years (CAQ, 2016; Griffin, 2016). In the USA, the Securities and Exchange Commission's (SEC's) original definition[i] of *financial expert*, proposed by the Sarbanes–Oxley Act (SOX), was considered to be too narrow and controversial because it was restricted to only the accounting financial expertise of audit committee members who have qualifications and experience as public accountants; namely, Chartered Professional Accountants (CPAs) and Chartered Financial Analysts (CFAs) (Bryan-Low, 2002). Later,

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[i] SOX defines a financial expert as a "person who has acquired education and experience as a public accountant (e.g., CPA, CFA) or an auditor or a principal financial officer, comptroller or principal accounting officer of a company or as possessing experience through the performance of similar functions (e.g., CEO, CFO)." Further, SOX states that a financial expert should possess the following: "(1) an understanding of GAAP and financial statements; (2) experience in (a) the preparation or auditing of financial statements of generally comparable issuers and (b) the application of such principles in connection with the accounting for estimates, accruals and reserves; (3) experience with internal accounting controls; and (4) an understanding of audit committee functions" (SEC, 2002). GAAP denotes generally accepted accounting principles.

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SEC's final rule broadened[ii] the scope of audit committee financial experts (ACFEs) under Section 407 of SOX by including accounting financial experts (AFEs) and non-accounting financial experts (NAFEs). Among the latter are financial experts (e.g., investment bankers and financial analysts) and supervisory experts (e.g., chief executive officers (CEOs) and firms' presidents). Likewise, other countries have specific requirements for ACFEs.

A plethora of research explores the effectiveness of the ACFEs' role in overseeing the financial reporting quality of public companies. There is also an ongoing debate about which type of expertise, by definition, has a stronger association with earnings quality: accounting or non-accounting expertise. Some studies propose a narrower definition of *financial expert* (Dhaliwal, Naiker, & Navissi, 2010; Krishnan & Visvanathan, 2008), while others suggest the advantages of a broader definition (Davidson, Xie, & Xu, 2004; Kusnadi, Leong, Suwardy, & Wang, 2014). Further research supports the claim that having both accounting and non-accounting experts on an audit committee can be beneficial in terms of earnings quality (Carcello, Hollingsworth, Klein, & Neal, 2008; Nelson & Devi, 2013). These mixed findings reveal that the impact of audit committee financial expertise on earnings quality using AFEs or NAFEs is still an open question.

The current study intends to integrate these inconclusive findings across 90 empirical studies through meta-analysis, which will enable us to achieve quantitative generalization and find moderators that are not evident when other methods, such as narrative reviews, are used. Prior meta-analytic studies and reviews examine the impact of audit committee effectiveness and corporate governance attributes on earnings management (Garcia-Meca & Sanchez-Ballesta, 2009; Larcker, Richardson, & Tuna, 2007). Pomeroy and Thornton (2008) conduct a meta-analysis on the association between audit committee independence and financial reporting quality; however, they do not consider audit committee financial expertise. Carcello, Hermanson, and Ye (2011) and Malik (2014) conduct narrative reviews on the audit committee literature and summarize the studies on financial expertise. The current study uses a meta-analytic technique, which is more effective than that of narrative reviews, to explore potential moderators across studies.

Lin and Hwang (2010) and Inaam and Khamoussi (2016) include financial expertise as a characteristic of audit committees in their meta-analyses. They find that ACFEs have a negative relationship with earnings management. Our study differs from these in four respects. First, we explore the impact of several moderators on the relationship between audit committee financial expertise and earnings quality, an issue that Lin and Hwang (2010) and Inaam and Khamoussi (2016) do not analyze. These moderators are corporate governance systems, International Financial Reporting Standards (IFRS), SOX, proxies of earnings quality, the different measures of financial experts, the ACFEs' independence and busyness, auditor firm size, auditor independence, auditor switching, and publication quality. Second, our study addresses the debate about which ACFEs (accounting or non-accounting) are more influential. This important issue is ignored by Lin and Hwang (2010) and Inaam and Khamoussi (2016). Third, prior studies examine the relationship between corporate governance attributes and earnings management but few cover audit committee financial expertise; for example, only nine studies in Lin and Hwang (2010) and 29 in Inaam and Khamoussi (2016). Our sample of 90 studies significantly outnumbers these authors' samples. Finally, our study considers several measures of earnings quality (e.g., discretionary accrual, real earnings management, conservatism, target beating, investor responsiveness to earnings, restatements, and internal control weakness), while Lin and Hwang (2010) and Inaam and Khamoussi (2016) focus only on discretionary accrual and real earnings management.

In addition, the current study contributes to the debate about necessary reforms to the composition of financial experts on audit committees. The concept release of SEC (2015) on revisions to audit committee disclosures mainly focuses on audit committees' oversight of the external auditor and ignores important reforms to such composition. The results from our meta-analysis provide implications for the regulators about introducing new regulations concerning the minimum ratio of financial experts appointed to audit committees. This study also contributes to meta-analytic research in the accounting field by graphically presenting heterogeneity across multiple studies and predicting a future true relationship between audit committee financial expertise and earnings quality via a forest plot. This approach is not used in any meta-analysis conducted in accounting and auditing literature. Khlif and Chalmers (2015) find that all meta-analytic studies in accounting research use only tables to present their results. However, Buckley, Devinney, and Tang (2014) state that meta-analytic results are more efficiently and effectively conveyed by using graphs. The current study uses the forest plot technique recommended by Neyeloff, Fuchs, and Moreira (2012). This technique is the most appropriate for archival studies in accounting literature because it is designed especially for observational data. The conceptual framework explored in our study is shown in Fig. 1.

The rest of the study is organized as follows: Section 2 provides a review of literature; Section 3 explains the method and meta-analytic procedures; Section 4 presents the results and discussion; Section 5 gives implications for regulations and directions for future research; and Section 6 offers the conclusions.

2. Review of literature

2.1. Audit committee financial expertise and earnings quality

Audit committee composition is considered important for the effective operation of such a committee (DeZoort, Hermanson, Archambeault, & Reed, 2002). In response to SEC and the mandatory requirements of SOX section 407 regarding ACFEs, a plethora of research has empirically examined the relationship between audit committee financial expertise and earnings quality. However, so far the evidence is mixed. Prior meta-analytic studies find a negative relationship between audit committee financial expertise and earnings management (Inaam & Khamoussi, 2016; Lin & Hwang, 2010). Consistent with such studies, we propose that a firm with financial experts on its audit committee enjoys a higher level of earnings quality. The general expectation is that financial experts have more advanced accounting and financial knowledge than an ordinary audit committee

[ii] SEC (2003) released final rules implementing sections 406 and 407 of SOX 2002. Although SOX and the SEC's proposed release use the term “financial expert,” SEC decided to employ the term “audit committee financial expert” in its final rules to clarify that the designated person must have characteristics that are particularly relevant to an audit committee's functions. The final rules define an “audit committee financial expert” as an individual who has all of the following attributes:

- An understanding of GAAP and financial statements;
- The ability to assess the general application of GAAP in connection with accounting for estimates, accruals, and reserves;
- Experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the company's financial statements, or experience actively supervising one or more persons engaged in such activities;
- An understanding of internal controls and procedures for financial reporting; and
- An understanding of audit committee functions.

An audit committee financial expert must have acquired these attributes through any one or more of the following:

- Education and experience as a principal financial officer, principal accounting officer, controller, public accountant or auditor or experience in one or more positions that involve the performance of similar functions;
- Experience actively supervising a principal financial officer, principal accounting officer, controller, public accountant or person performing similar functions;
- Experience overseeing or assessing the performance of companies or public accountants with respect to the preparation, auditing or evaluation of financial statements; or
- Other relevant experience (SEC, 2003).