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Does auditor size matter? Evidence from small audit firms☆

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ABSTRACT

While prior literature documents that Big 4 auditors provide higher quality audits, recent evidence suggests that these differences are due to client characteristics (Lawrence, Minutti-Meza, & Zang, 2011). Evidence on the audit quality of mid-tier auditors is mixed (Boone, Khurana, & Raman, 2010; Cassell, Giroux, Myers, & Omer, 2013). This study investigates the audit quality of small auditor firms (i.e., those with 100 or fewer). Specifically, we examine the relationship between earnings manipulations and the use of small audit firms, controlling for client characteristics using propensity score matching. We find that small audit firms are less able to constrain managers' opportunistic use of discretionary accruals. However we find no evidence that small audit firms are associated with real activity manipulation. By investigating a specific group of audit firms that are the smallest in the audit market, this study extends our understanding of the role of audit firm size in audit quality.

1. Introduction

Big 4 auditors have been viewed as a surrogate for higher audit quality in the literature (e.g., Becker, DeFond, Jiambalvo, & Subramanyam, 1998; DeAngelo, 1981; Francis & Krishnan, 1999; Francis, Maydew, & Sparks, 1999; Teoh & Wong, 1993).[2] However, since audit quality is jointly determined by managers and auditors, the evidence is driven by the clientele effect as well. In a recent study, Lawrence, Minutti-Meza, and Zang (2011) find that differences in audit quality between Big 4 and non-Big 4 auditors are more likely attributable to client characteristics, especially size. They find that after controlling for client characteristics, the difference in audit quality between these two groups disappears.

In addition, some studies have examined the audit quality of mid-tier auditors. However, the evidence on mid-tier auditors is mixed. For example, Boone, Khurana, and Raman (2010) do not find a significant difference in audit quality between Big 4 and mid-tier audit firms (using performance-adjusted abnormal accruals as the proxy). Cassell, Giroux, Myers, and Omer (2013) document that the financial reporting credibility of mid-tier clients was lower than Big 4 clients in the pre-Anderson period, but was indistinguishable from Big 4 clients in the post-Anderson period (using ex ante cost of equity capital and earnings response coefficients as the proxies). However, Eshleman and Guo (2014) find that Big 4 auditors provide superior audit quality than mid-tier auditors using restatements as a proxy for audit quality. These studies use different definitions of mid-tier auditors, and empirical evidence on the audit quality of small auditors (as opposed to mid-tier auditors) is scant and remains somewhat of a black box.[3] The purpose of this paper is to investigate whether there is a quality difference among small auditors after controlling for client characteristics.

This study is also motivated by the recent attention of the Public Company Accounting Oversight Board (PCAOB). The PCAOB was established with the passage of the Sarbanes–Oxley Act of 2002 in response to the cascade of audit failures in the preceding decade. PCAOB inspections accompanied by other strains on the resources of audit firms (e.g., the shortened 8-K filing deadline, SOX section 404, etc.) have dramatically changed the audit market.[4] Small audit firms are particularly impacted by resource constraints and the increasing regulation

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[1] Tel.: +1 541 737 3973; fax: +1 541 737 4890.
[2] DeAngelo (1981) argues that auditors may have incentives of providing lower audit quality to retain their clients due to future client-specific quasi-rents. In this viewpoint, large audit firms provide higher quality because they have more to lose from larger client bases. Literature generally views Big 4 auditors as a surrogate for higher audit quality based on DeAngelo's (1981) argument.

[3] Boone et al. (2010) defines the mid-tier audit firms as Grant Thornton and BDO Seidman. The Mid-tier auditors in Cassell et al. (2012) are Grant Thornton, BDO Seidman, and McGladrey & Pullen. Eshleman and Guo (2014) consider Grant Thornton and BDO Seidman as the mid-tier auditors.

[4] One of the greatest controversies surrounding the establishment of the PCAOB is the shift from self-regulation to government regulation in the U.S. audit market. The Sarbanes–Oxley Act authorizes the PCAOB to inspect registered audit firms either annually or triennially, depending upon whether the audit firm provides audit reports for more than 100 issuers (annual inspection) or 100 or fewer issuers (triennial inspection). This rule has replaced the peer review system promulgated by the American Institute of Certified Public Accountants (AICPA). The debate has thus arisen regarding whether the PCAOB inspections are more effective than the pre-SOX AICPA peer review system.

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of audit firms has increased their compliance costs. Consistent with these increased costs, DeFond and Lennox (2011) find that over six hundred small audit firms (i.e., those with 100 or fewer clients) exited the public client market after the adoption of SOX in 2002. DeFond and Lennox (2011) document that exiting small audit firms are of lower quality when compared with non-exiting small audit firms. However, it is an open question whether small audit firms provide lower quality audits than other audit firms in general.

Existing research has focused on differences in the quality of Big 4 and non-Big 4 auditors.[5] It is generally assumed that larger audit firms provide higher quality audits (e.g., Becker et al., 1998; DeAngelo, 1981; Francis & Krishnan, 1999; Francis et al., 1999; Teoh & Wong, 1993).[6] It is common in the literature to view non-Big 4 auditors as a homogeneous group, even though they exhibit clear differences in various firm attributes, such as size. There is evidence that smaller auditors provide greater value in certain circumstances. Louis (2005) finds that acquirers audited by non-Big 4 auditors have significantly higher abnormal returns around M&A announcements than do acquirers audited by Big 4 audit firms. The heterogeneity among non-Big 4 auditors, however, has not received much attention until recently, and these studies have primarily examined mid-size auditors with mixed evidence.

In this paper, we examine whether small audit firms are able to constrain managers to conduct earnings manipulations. We target a group of small audit firms with 100 or fewer clients because these auditors are subject to different levels of oversight by the PCAOB. We include two different earnings manipulation proxies because Zang (2012) finds that managers trade off accrual-based earnings management and real earnings management methods based on the relative cost and these two methods serve as substitutes in managing earnings. Therefore, we examine whether the use of small auditors is associated with both accrual-based earnings management and real earnings management.

Earlier findings of differences in audit quality are increasingly attributed to the attributes of the clients who select the auditors. Lawrence et al. (2011) find that the differences in proxies for audit quality between Big 4 and non-Big 4 auditors are more likely attributable to client characteristics, especially client size. To control for client characteristics and potential endogeneity, we employ a propensity-score matched sample to examine the association between earnings management and the use of small audit firms. We estimate the propensity score using an auditor choice model that employs variables identified in prior literature that may affect the selection of auditors (Ashbaugh, LaFond, & Mayhew, 2003; Chaney, Jeter, & Shivakumar, 2004). We then examine the relationship between two earnings manipulation measures and an indicator variable for small audit firms.

In descriptive analysis, we find that firms with higher asset turnover, a lower current asset component of total assets, a higher quick ratio, or lower industry litigation risk are more likely to hire smaller audit firms, while client size (measured by log of assets) is significantly negatively associated with the likelihood of hiring smaller audit firms. We further find that firms using small audit firms are more likely to engage in higher levels of earnings manipulation, as measured by discretionary accruals, but not by real activity manipulations. The result holds when we use different thresholds to define smaller audit firms (e.g., audit firms with fewer than 30 clients or 50 clients). Finally, when we exclude exiting auditors from our sample, we find that there is still a positive association between the use of small audit firms and accrual-based earnings management.

Our findings supplement the previous literature on small audit firms. The previous literature focuses on Big 4 auditors and treats non-Big 4 auditors as a homogeneous group to compare against. Nonetheless, there are differences among non-Big 4 auditors on characteristics such as client size, number of audit partners, resources and operations. Additionally, some non-Big 4 audit firms have national operations while others have only regional or local operations. These differences among non-Big 4 audit firms are actually quite sizeable and should be of interest to researchers. Further, although previous studies indicate that small audit firms have more audit deficiencies or quality control defects (Hermanson & Houston, 2008; Hermanson, Houston, & Rice, 2007), there is little evidence as to why firms choose small audit firms and the incentives behind that choice.

As mentioned previously, DeFond and Lennox (2011) show that small audit firms exiting the audit market for publicly listed firms have lower audit quality than non-exiting small audit firms (measured by the propensity to issue going-concern opinions). In contrast to DeFond and Lennox's (2011) study, we examine whether earnings management associated with small audit firms differs from that associated with non-small audit firms. We focus on earnings management through the use of accruals since reported discretionary accruals are the joint product of managers and auditors and thus represent an important aspect of financial reporting quality. Besides accruals management, managers may conduct earnings manipulation through real activities (Cohen, Dey, & Lys, 2008; Graham, Harvey, & Rajgopal, 2005; Gunny, 2010; Roychowdhury, 2006). By also investigating the effect of small audit firms on real earnings management, this paper contributes to our knowledge of the role of smallest audit firms in constraining managers' opportunistic behavior through multiple channels.

The remainder of this paper is organized as follows. Section 2 reviews related literature and develops the hypotheses. Section 3 presents the research design. Section 4 reports on the data and empirical results. Section 5 concludes.

2. Related literature and hypothesis development

Earnings management is defined by Healy and Wahlen (1999). They state that "earnings management occurs when management uses judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers." Among the various monitoring mechanisms that constrain managers' incentives to manipulate reported earnings, the use of external auditors is regarded as one of the most effective ways to improve the credibility of financial reporting.

Previous literature indicates that the demand for hiring Big 4 auditors is increasing in agency costs (DeFond, 1992; Francis & Wilson, 1988) consistent with the common perception in academic research that large accounting firms provide higher quality audits (e.g., Becker et al., 1998; DeAngelo, 1981; DeFond, 1992; Dye, 1993; Farber, 2005; Francis & Krishnan, 1999; Palmrose, 1988). In a theoretical framework, DeAngelo (1981) illustrates that auditors may compromise their independence due to the economic dependence on their clients, mainly the relative economic importance of the client to the auditor's client portfolio. Large audit firms are more likely to resist the threat because they have "more to lose" compared with small audit firms (i.e., they can bear higher reputation loss), and hence large audit firms may provide better audit quality. In addition to reputational concerns, the literature also indicates that large audit firms have greater wealth at risk from litigation so the audit quality of large audit firms is higher due to

[5] Throughout the paper, we use the term "Big 4" to refer to the Big 4 audit firms, and the former Big 5, Big 6, or Big 8 audit firms if the period covers previous years when each of these classifications were appropriate.

[6] DeAngelo (1981) argues that auditors may have incentives of providing lower audit quality to retain their clients due to future client-specific quasi-rents. In this viewpoint, large audit firms provide higher quality because they have more to lose from larger client bases. Literature generally views Big 4 auditors as a surrogate for higher audit quality based on DeAngelo's (1981) argument.

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