Principal-Agent Analysis on How Legal Risks Affect Audit Fees and Quality

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ABSTRACT

This article develops a principal-agent multi-period model that ties legal risks, auditing fees and internal accounting practices. The principal is the auditing firm and the agent is the client firm. The client firm can improve its credibility by improving its internal auditing practices, which results in lower audit fees to the auditor firm. It is found that in equilibrium, there is a credibility threshold level that firms should meet and which depends on the legal risks associated with accounting practices and audit errors. If, as result of strict legislation, a firm is below the threshold it will pay above optimal auditing fees. In this case, the firm should make a single, immediate improvement to reach the optimal level. Additionally, only firms whose credibility is close to the threshold are affected if government increases legal scrutiny. More credible firms are not adversely affected by the stricter legal climate.

KEYWORDS

Accounting Practices, Agency Theory, Audit Penalties, Audit Reputation, Credibility, Government Regulation, Principal-Agent

INTRODUCTION

The accounting scandals of the beginning of the 21st century caused dramatic changes in the field of accounting. Among the direct effects of the Enron scandal are the demise of the fifth largest accounting company in the United States – Arthur Andersen (AA) – and the enactment of the Sarbanes-Oxley Act (SOX), which limits accounting practice, and puts heavy fines on the auditing industry. While the dissolution of Arthur-Andersen mostly affected its former clients, SOX affected the entire field of accounting. Both events, however, allowed researchers in the field to observe firms’ reaction to the changes in the audit industry, which produced a vast empirical literature (Agrawal and Cooper, 2017; Diermeier et al., 2017).

Despite the plethora of empirical findings, there is very little theory that ties between auditing fees, internal auditing practices and legal costs. In this research, it is proposed to fill this gap by providing a game-theoretic multi-period model that captures empirical observations that were made in these recent years. Specifically, the paper presents a model that ties between government penalties and legal costs associated with auditing, auditing fees and firms’ internal auditing practices. In this paper’s principal-agent setting the players are the auditing firm (AF) and the client firm (CF). Client firms are characterized by their credibility, i.e. the reputation of their internal accounting practices. Firms with good reputation are believed to have better internal control practices than firms with bad reputation. The auditing fee depends on the costs that auditor incurs, namely, the auditing cost and the legal costs in case there are errors in the audit. The client firm, on its part, can choose to invest in improving its internal auditing practices and thus, improve its credibility. By improving its credibility, it can reduce the legal costs incurred by the auditor and hence the fees it has to pay the auditor.

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The findings of this paper are that in equilibrium there is a threshold level of credibility that firms must meet. This threshold level is positively tied with the expected legal costs and thus, explains why firms adapted to SOX with increasing accounting conservatism. Moreover, firms who are considered to be less credible will pay increased auditing fees. This paper’s model, however, predicts that these firms will align themselves to the new threshold level sooner rather than later, and that in consecutive periods auditing fees for these firms will align themselves with the rest of the industry.

Background

The aftermath of the AA debacle and the effects of SOX are investigated by many researchers in various contexts. Researchers document an increase in financial reporting conservatism after SOX (Lobo and Zhan, 2006; Asthana et al., 2009). They find that post-SOX firms report less accrual and incorporate losses more quickly than gains. Raghunandan and Rama (2006) document empirical evidence of higher audit fees following SOX Section 404 and higher audit fees for clients with material weakness disclosure compared to clients without such a disclosure. Chan and Zhang (2006) find that ex-AA clients had lower levels of abnormal accruals compared to Big 4 auditor clients. They conclude that successor auditors of ex-AA clients required more conservative accounting from their ex-AA clients in order to minimize their litigation risk. Krishnan (2007) finds that the earning conservatism of former AA clients of the infamous Houston branch increased immediately after the switch to other Big 4 audit companies. Other researchers focus on relationship between government regulations and the auditor’s actions. For example, Bigus (2015) examines the interaction between auditor reputation and liability schemes and Bigus (2016) examines how auditor optimism affects their behavior for different liability schemes. In Bigus (2015) model, the auditor’s ability is unobservable and therefore it is revealed only when inaccurate reporting occurs. Similar modeling is employed by Ye and Simunic (2013) and Bertomeu et al. (2017) who model the auditor’s actions as unobservable. In contrast, this paper focuses on the CF’s actions, which are assumed to be observable but non-verifiable by a third party and therefore non-contractible (see a similar application of these assumptions in Giat et al., 2010 and Giat and Subramanian, 2013).

Another strand of research examines how audit fees were influenced by the AA scandal and the enactment of SOX (e.g., Kealey et al., 2007; Ghosh and Pawlewicz, 2009; Asthana and Boone, 2012). The model assumptions let audit price be derived endogenously and the findings are that audit price decreases with reputation and increases with government penalty costs. The former finding is similar to Fields et al. (2004) who show that risk increases the audit cost and the latter finding echoes Ghosh and Pawlewicz (2009) who links audit quality and cost with potential litigation damages. This paper’s prediction that firms with the worst reputation will experience the highest fee costs is consistent with empirical evidence by Asthana et al. (2009) who find that firms with longer tenure at Andersen experienced the highest fee increase.

The firm’s size or complexity as a variable in the model that is proposed. A common measure for the firm’s complexity is the number (or natural log or square root) of operating or business segments (Cassell et al., 2017; Kanagaretnam et al., 2016). The model also considers the variable audit quality. Misstatements are used as a proxy for audit quality, see Christensen et al. (2016) that find that both auditors and investors view financial statement restatements as the leading indicator of poor audit quality. Cassell et al. (2017) examine auditor quality of former AA clients in their first year after switching to a new auditor. They find that those that switched in the fourth fiscal quarter were likely to have a lower audit quality. In a related research Chi et al. (2016) find that audit tenure is positively correlated with audit quality. The penalty costs reflect an assumption that the legal climate does not change unless there is a dramatic event (such as the fall of Enron and the enactment of SOX). In a similar model, Giat (2013) allows continuous and gradual changes to the penalties. However, in that model there is no strategic interaction. See also Wiseman (2018) for an example of changing costs affect moral decisions.
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