# ARE THE REGULATORY REFORMS WORKING?

# EVIDENCE FROM AUDIT COMMITTEE MEMBERS' SELECTION OF AUDITORS

by

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This dissertation was prepared under the direction of the candidate's dissertation advisors, Dr. Julia L. Higgs and Dr. George R. Young, School of Accounting, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the College of Business and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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## ABSTRACT

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The Sarbanes-Oxley Act made audit committees directly responsible for the appointment, compensation, and supervision of companies' auditors. Limited research in the auditor selection process and PCAOB inspections suggest that managers, not audit committees, may still be selecting the auditors, and that inspection reports are not useful. This study addresses both of these areas. This paper considers two theories of governance, Agency Theory and Institution Theory, to analyze the audit committee members' auditor selection process. The study examines whether Audit Committee Members use two specific types of audit quality indicators, other than managers' recommendation, in evaluating auditors. In a setting where the manager recommends the auditor, the auditors' inspection results (favorable/unfavorable) and a prior manager-auditor affiliation (absent/present) are manipulated in a between-subject research design, using financially literate professionals as a proxy for audit committee members. The

study finds that audit quality perception and auditor selection are jointly determined. Inspection results are positively associated with audit quality perception and auditor selection. The nature of a manager-auditor affiliation is directly associated with audit quality perception and inversely related to auditor selection. Further, controlling for perception, audit committee members are more likely to recommend auditors with unfavorable inspection results, if a prior affiliation with management is present than if an affiliation is absent. Overall, the results indicate that audit committee members are diligent in evaluating auditors, and PCAOB inspection results are useful. The results of this study contribute to the audit committee effectiveness and PCAOB literature.

## DEDICATION

I dedicate my dissertation to:

Glen, for your limitless love and support;

Kailan, for being you and making it all worthwhile;

my mother and late father, for inspiring me;

my nieces and nephews for your future endeavors.

**ARE THE REGULATORY REFORMS WORKING?**

**EVIDENCE FROM AUDIT COMMITTEE MEMBERS' SELECTION OF AUDITORS**

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# CHAPTER 1: INTRODUCTION

## Research Objectives

The Blue Ribbon Committee [BRC] states "the proper functioning of an audit committee relies … specifically on the audit committee members' attitude toward their own role. If an audit committee is determined to be diligent in its oversight role, a sure sense of appropriate action will follow." (BRC, 1999, p. 37) Audit committees (AC) have a critical oversight role in the financial reporting and auditing process of public companies (BRC, 1999; SOX, 2002). In 2002, the Sarbanes-Oxley Act [SOX] made audit committees of public companies directly responsible for the appointment, compensation, and supervision of the company's public auditors. Despite the increased focus on corporate governance and audit committee effectiveness pursuant to SOX, recent research suggests that managers, not audit committees, may have a primary role in appointing auditors, suggesting a possible lack of diligence on the part of directors (Cohen, Krishnamoorthy, & Wright [CKW], 2008, 2010; Beasley, Carcello, Hermanson, & Neal, 2009; Fiolleau, Hoang, Jamal, & Sunder, 2010; Cohen, Gaynor, Krishnamoorthy, & Wright, 2010). Examining this issue, by looking at the actions of potential audit committee members (ACM), is critical as financial reporting quality may be at risk if audit committee members are not effectively performing in their role of selecting the auditor as required under SOX (2002).

The main objective of this study is to examine audit committee effectiveness (diligence) in the auditor selection process by testing whether audit committee members consider quality factors when appointing an auditor. DeZoort, Hermanson, Archambeault, & Reed (2002) state that an audit committee's composition, authority, and resources provide the basic inputs to achieve audit committee effectiveness (ACE), but it is their diligence that dictates success. Diligence requires incentive,[1] motivation and perseverance, and is defined as the members' will to act and expend effort in performing their stated function (DeZoort et al., 2002). The study examines ACM diligence by examining whether they use audit quality indicators, other than management's recommendation, when evaluating an auditor.

The secondary purpose of this study is to examine the usefulness of inspection reports issued by the Public Company Accounting Oversight Board [PCAOB or Board]. SOX created the PCAOB to oversee public company auditors. "The Board's statutory mission is to protect the interests of investors and to further the public interest in the preparation of informative, fair and independent audit reports." (PCAOB, 2010, p. 2) The Board is charged with inspecting and reporting on the internal functions of public auditors. The Board issues inspection reports that offers independent assessments of the auditors' quality control systems and compliance with regulatory standards.[2] Inspection results are available to ACM,[3] yet they must expend the effort to acquire and use them.

[1] ACM incentives include potential risks associated with a low quality audit: SEC enforcement action, lawsuits, reputation and monetary cost.
[2] The PCAOB routinely inspects public auditors with more than 100 issuers (annual firms), and 100 or fewer issuers (triennial firms), in one year and three year cycles, respectively.
[3] The results of the inspection, along with information on the organization of the public accounting firm, are publicly available via the PCAOB website. Audit committees are encouraged to discuss the PCAOB inspections with their prospective auditors. They do not have to wait until the report is issued to review the inspection team's findings.

Academic research on the usefulness of PCAOB inspections is mixed. Some scholars find that PCAOB inspections are not informative (Lennox & Pittman, 2009), while others find them useful (Abbott, Gunny, & Zhang, 2011; Gunny, Krishnan, & Zang, 2009; Gunny & Zhang, 2009), and valuable (DeFond, 2010). The current study adds to this research stream by using the auditor's inspection results as an audit quality indicator in the auditor selection process.[4]

The study considers Agency Theory and Institution Theory, from the governance literature, to explain audit committee members' behavior in the auditor engagement process. Agency Theory, often used or assumed in accounting research (CKW, 2008, 2010; Beasley et al., 2009; Cohen et al., 2010), predicts that ACM act on behalf of shareholders in monitoring management and supervising auditors (Jensen & Meckling, 1976; Fama, 1980; Fama & Jensen, 1983). Alternatively, one version of Institution Theory suggests that ACM act as a corporate figurehead to symbolize regulatory compliance and to satisfy constituents (Meyer & Rowan, 1977). Some scholars find that, due to various motives and incentives, ACM perform their functions in a symbolic and ritualistic manner that sometimes conflicts with Agency Theory (DiMaggio & Powell, 1983; Kalbers & Fogarty, 1998; Scott, 2008). SOX (2002) increased audit committees' responsibilities to improve audit quality, enhance financial reporting integrity, and restore investors'confidence in financial reporting; all goals consistent with an Agency-based role for ACM. Audit committee members' lack of diligence, evidenced by members' selecting auditors in a symbolic and ritualistic manner without consideration of quality indicators, supports an Institution-based perspective inconsistent with SOX's intent.

[4] Consequently, this is a joint test of Audit Committee Effectiveness and Usefulness of PCAOB inspection reports.

## Motivation of Research

This research is motivated by several factors. First, the extant literature shows that audit committees are still not effective despite mandated characteristics and responsibilities aimed to provide effectiveness (Turley & Zaman, 2004; Carcello, 2009). Thus, it is important to understand whether ACM are operating in a "black box," performing symbolic rituals, or diligently trying to do their jobs and protect shareholders. Second, several researchers have called for further research in the areas of corporate governance, specifically ACE, changes in the regulatory environment, and audit committee processes (DeZoort et al., 2002; Spira, 1999, 2002; Turley & Zaman, 2004, 2007; Beasley et al., 2009; Carcello, 2009; CKW, 2010, Carcello, Neal, Palmrose, & Scholz, 2011), and in PCAOB inspections (Hermanson & Houston, 2009; DeFond, 2010). Carcello (2009) reports a need for behavioral research in corporate governance. He states "…behavioral-type experiments would enrich our understanding of effective governance oversight of the financial reporting process" (p.16-17).

Third, the question of whether SOX reforms have impacted audit committee quality is still an unanswered topic. Some studies show that while ACE has generally improved in some areas since the passage of SOX (Beasley et al., 2009; Bronson, Carcello, Hollingsworth, & Neal, 2009; Cohen et al., 2010), it is still weak with regards to the selection and retention of external auditors (Beasley et al., 2009; CKW, 2008, 2010; Fiolleau et al., 2010; Cohen et al., 2010). Fourth, DeFond (2010) identifies several reasons for studying the consequences of PCAOB inspections. He reports that the PCAOB, with its oversight function and enforcement powers, provide additional

incentives for auditors to perform high quality audits.[5] Defond also argues that PCAOB inspections represent the central feature of the shift from fifty years of self-regulation to quasi-governmental regulation.[6] He states that research providing evidence of the impact of the new monitoring mechanism on the U.S. audit market would be a valuable contribution to the literature.

Recent auditor engagement research finds that management, not the audit committee, drives the auditor selection process (CKW, 2008, 2010; Fiolleau et al., 2010). As research on auditor engagements often uses larger public companies that engage Big 4 auditors, it is not known whether this phenomenon also occurs in small companies. Additionally whether ACM choose a manager-recommended auditor in light of audit quality indicators has not been tested.

**Contribution of Research**

A significant contribution of this study is the concentration on small public companies.[7] Audit committee effectiveness in small public companies is largely unexamined. Therefore, the question of whether ACM on the Boards of small public companies are effective or whether they find the PCAOB inspection reports useful remains unanswered. The results of this study will help answer the above questions, providing valuable insight to small issuers of the Securities and Exchange Commission [SEC].

This research also contributes to the accounting and auditing literature in the following ways. First, it extends the ACE literature by providing insight into audit

[5] Other incentives that impact auditors include auditors' reputation and litigation damages.
[6] The PCAOB oversight function is often referred to as "quasi-governmental" because it is a private non-profit organization with regulatory powers, but is not part of the US government system.
[7] A "small public company" (or small SEC issuer) refers to publicly traded company with market capitalization of less than $700M i.e. not a large accelerated filer.

committee members' diligence in hiring auditors and on whether they use an Agency or Institutional perspective when performing this function; thus, it provides additional evidence as to whether weaknesses exist in the auditor appointment process. Second, as far as I am aware, this is the first experimental study to examine the ACM auditor selection process. Academic scholars (e.g. Daugherty, Dickens, & Tervo, 2011, Carcello, 2009; Bédard & Gendron, 2010) call for governance research using experimental methods. Third, the study identifies conditions under which the PCAOB inspection reports may be useful, thereby providing the academic literature with an additional proxy for perceived audit quality. Fourth, the study's research design controls for cross-sectional issues associated with governance research. It directly tests input from audit committee members. Fifth, the results of this study may have potential policy implications for regulators. The results will also be of interest to market participants as beneficiaries of effective audit committees.

**Method Overview**

Towards this end, a 2 x 2 between-subject research design, using financially literate professional participants as proxy for audit committee members of small public companies, was conducted. The study manipulates the auditors' PCAOB inspection results (favorable/unfavorable) and a previous manager-auditor affiliation (absent/present) which are proxies for audit quality indicators,[8] on an ACM hiring decision. The results of PCAOB inspections are used as a proxy for perceived audit competence as they offer an independent evaluation of the auditors' technical ability, competence, and use of available resources, as well as identify quality control

[8] For purposes of this study, "affiliation" refers to an association or relationship between management and the prospective audit firm regardless of the type of association (personal, business or casual).

weaknesses within the firm's operations. The inspection process is the fundamental tool used by the PCAOB to improve public company auditing, and increase investors' confidence in audited financial reporting (Goelzer, 2005). The PCAOB strongly encourages ACM to inquire about the existence and nature of any inspection deficiencies involving their external auditor (Goelzer, 2008).

The presence of manager-auditor affiliation, operationalized by the revolving-door phenomenon,[9] may be perceived as a lack of independence affecting audit quality. Both regulators and standard setters are concerned with auditor independence (SEC, 2000; PCAOB, 2006a, 2006b, 2006c, 2007; American Institute of Certified Public Accountants [AICPA], 2007), and have made audit committees responsible for ensuring auditor independence (BRC, 1999; SOX, 2002). The SEC (2000, p. 3) states that "an auditor is not independent if a reasonable investor, with knowledge of all relevant facts and circumstances, would conclude that the auditor is not capable of exercising objective and impartial judgment." As close affiliations may affect independence in appearance and in fact, SOX (2002) and SEC rules mandate a one-year cooling-off period before auditors who were former members of the client's engagement team can accept a supervisory accounting position or an oversight position with the client.

These two audit quality indicators are manipulated so that they support management's evaluation in two of the four cases and conflict with management's evaluation in the other two cases. Management's recommendation remains constant, to isolate audit committee members' effectiveness. This study posits that ACM are

[9] The "revolving-door" phenomenon occurs when a company hires a staff member or owner of its audit firm in a financial position within the company or when shareholders appoint former auditors to serve on the company's Board.

effective if hiring decisions are consistent with audit quality indicators. A proxy for audit committee members of small public companies that engage triennial auditors (who audit 100 or fewer issuers) are used in the research design as this group of ACM is expected to have a greater need of PCAOB inspection reports, since other independent sources to evaluate triennial auditors are limited.

As this study assumes audit committee members act diligently when evaluating auditors, I expect a positive and significant association between favorable inspection results and ACM perception and selection of the auditor. Similarly, I expect the absence of a previous manager-auditor affiliation to be positively and significantly associated with ACM perception and selection of the auditor. Lastly, I expect the influence of the inspection results on ACM evaluation of the auditor to differ depending on whether a prior manager-auditor relationship exists.

## Results Overview

Overall, the results indicate that audit committee members are diligent, perception and selection decisions are made jointly, and inspection results are useful. I find a significant difference in means across treatment groups for both dependent variables. Also, inspection results and the nature of a manager-auditor affiliation are directly associated with audit quality perception. Further, controlling for perception, audit committee members are more likely to recommend auditors with unfavorable inspection results, if a prior affiliation with management is present than if an affiliation is absent.

## Organization of Dissertation

The rest of the paper is presented as follows. Chapter 2 presents a review of relevant literature on audit committee effectiveness and PCAOB inspections. Chapter 3

presents the theory and develops the hypotheses. The methodology and experiment is discussed in Chapter 4, and results and analyses are provided in Chapter 5. Chapter 6 concludes with an overall summary, a discussion of the contribution and limitations of this study, and recommendations for future research.

## CHAPTER 2: BACKGROUND AND LITERATURE REVIEW

This chapter provides relevant background and literature review on audit committee effectiveness and PCAOB inspections.

### Audit Committee Effectiveness

Although audit committees have been a permanent structure within the corporate governance system for centuries (Menon & Williams, 1994; Klein, 2002), the effectiveness of audit committees as monitors is often debated (BRC, 1999; Abbott, Park, & Parker, 2000; Bédard & Gendron, 2010). Some researchers find that audit committees offer a contributory role within the governance system (Turley & Zaman, 2007; DeZoort, Hermanson, & Houston, 2008), while others find mixed results (Beasley et al., 2009; CKW, 2010), or an ineffective contribution (Cohen et al., 2010). In the current environment, audit committees play an even greater role in the provision, maintenance, and oversight of high-quality financial reporting (Abbott, Parker, & Peters, 2004; Bédard, Chtourou, & Courteau, 2004; Bédard & Gendron, 2010). Generally, studies in ACE find that effective audit committees comprise independent, expert, and diligent members (Carcello & Neal, 2000, 2003; Klein, 2002; Abbott et al., 2004; Bédard et al., 2004; DeFond, Hann, & Hu, 2005; Vafeas & Waegelein, 2007; Bronson et. al., 2009; Krishnan & Visvanathan, 2009); however, these scholars study audit committees' inputs and outputs using archival data. The process and behavior by which audit committee members operate are mostly unexamined (Beasley et al., 2009).

Gendron and Bédard (2006) interviewed three audit committee chairs from large Canadian public corporations, listed on Toronto's Stock Exchange, to study audit committee members' reflective acts and emotions regarding their formal duties. The authors find that audit committee members' notions of effectiveness are derived from reflecting on their processes and results, with variation across individuals in the definition of effectiveness and in the confidence that effectiveness is being achieved in a certain area. Supplementing their study with data from Gendron, Bédard, & Gosselin (2004), the authors also find that the chairpersons' sense of audit committee effectiveness was fundamentally unchanged post-SOX when compared to pre-SOX.

In an experimental study, DeZoort et al., (2008) compare audit committee judgments pre- and post-SOX and their perception of the effects of SOX. They find that post-SOX, ACM perceive that audit committees have more expertise in evaluating accounting issues, are more concerned with reporting accuracy, and have a greater need for conservative financial reporting than do those in the pre-SOX period. Post-SOX respondents who support the auditors' proposed adjustment have more favorable views of the benefits of SOX and believe more strongly that audit committees in the post-SOX period are more conservative and have more power than they did pre-SOX.

Beasley et al. (2009) interviewed 42 ACM (including chairs) to gain insight into audit committee processes. They organized their questions and responses into six broad audit committee process areas and evaluated the results partly by the tension between Agency Theory and Institution Theory. They find that although ACM strive to provide more monitoring and less ceremonial services, the evidence revealed that ACM provide both substantive monitoring and ceremonial actions within all six process areas, and

conclude that neither Agency Theory nor Institution Theory fully explains audit committee processes. The authors find that ACM responses vary with personal and company characteristics, as well as accounting expertise and appointment dates (e.g. pre-SOX vs. post-SOX).

Fiolleau et al. (2010) present results from a Canadian field study that investigates the process by which a company and prospective auditors acquired information about each other. The authors observe significant management control in the auditor selection process. In Cohen, Krishnamoorthy, & Wright (2010 forthcoming), the authors extend their prior 2002 study in an interview-based research design. They interviewed 38 auditors in the post-SOX period to examine auditors' perceptions of audit committees and find that auditors perceive audit committee members as exhibiting more expertise and are more active, diligent and powerful. Auditors now rely on ACM more often in planning and performing the engagement than they did pre-SOX. The authors also note instances where auditors perceive audit committees as being more passive, allowing management to play a greater role in situations such as auditor appointment.

Cohen et al. (2010) conduct an experiment to examine whether auditors consider CEO influence (low/high) over ACM when contemplating difficult audit adjustments under two possibilities of earnings management (low and high). Auditors waive a larger amount of a proposed audit adjustment when management incentives to manage earnings are low compared to when they are high. When management incentives to manage earnings are high, auditors are more likely to waive a larger amount of an adjustment when the CEO influence on ACM is high compared to when CEO influence is low.

The research on audit committee processes and behavior is limited and the results are mixed. This paper extends ACE literature by examining audit committee members' diligence in selecting an auditor. SOX (2002) made audit committees responsible for the appointment, compensation, and supervision of the companies' external auditors, but prior research suggests that ACM may not be performing this function as intended (Fiolleau et al. 2010; CKW, 2010).

In DeZoort et al. (2002) synthesis of the empirical literature on audit committee effectiveness, the authors posit that while audit committees' composition, authority, and resources provide the basic inputs to achieve ACE, it is audit committee members' diligence that dictates success. The authors define ACM diligence as the members' will to act and expend effort, and state that the components of diligence are incentive, motivation, and perseverance. An examination of whether certain personal ACM characteristics are associated with greater diligence is explored.

**PCAOB Inspections**

Pursuant to SOX, the PCAOB inspection process replaced the AICPA peer reviews in evaluating controls of public accounting firms. The AICPA program has been criticized for lack of independence (Gunny & Zhang, 2009; Hilary & Lennox, 2005), but some researchers found that the program was credible and signaled auditor quality (Casterella, Jensen, & Knechel, 2009; Hilary & Lennox, 2005).

In a pre- and post-SOX analysis, Gunny and Zhang (2009) examine the association between audit quality and peer review reports issued in pre-SOX period 1997-2003 and compare it with the association between audit quality and PCAOB inspections issued during 2005-2006 (post-SOX). They partition the findings in the peer review and

PCAOB inspection reports into three "opinion" categories:[10] *positive*, *deficient*, *seriously deficient*. Using four measures of audit quality,[11] the authors find consistent evidence in support of the association between seriously deficient PCAOB opinions and lower audit quality, but no support for the peer review opinions and audit quality association.

Lennox and Pittman (2010) analyzed the supervision of auditors pre- and post-SOX. The authors fail to find an association between content of the PCAOB inspection report and the client's subsequent auditor choice. The authors also find that an association between incidence of restatements and the number of weaknesses reported in inspection reports (issued 2005-2007) did not decrease over time. From this study, the authors conclude that the pre-SOX peer reviews were informative but the post-SOX inspections are not, and that audit quality did not improve after inspections. Additionally, the perceived informative content of peer review reports diminished pursuant to PCAOB inspections.

Research involving the PCAOB inspection report is also contradictory. Some scholars find inspection reports uninformative, untimely, and lack usefulness (Lennox & Pittman, 2010; Roybark, 2009), while others find it offers a signal of audit quality, particularly in triennial audit firms (Abbott et al., 2011; Daugherty et. al., 2011, Gramling, Krishnan, & Zhang, 2011; Gunny et al., 2009).

[10] For both PCAOB & peer review opinions: *Positive*=no deficiencies. For PCAOB opinions, *deficient*= audit deficiencies, and *seriously deficient*=audit deficiencies relating to the auditor's failure to identify a departure from GAAP that may (if material) result in a restatement of the financial statements. For Peer Review opinions *deficient*=auditor receives unmodified, modified or adverse opinion, and *seriously deficient*=auditor receives a modified or adverse opinion from the Peer Review.

[11] The four proxies used for audit quality include abnormal current accruals, the propensity to restate earnings, the propensity to just meet analysts' forecasts and the auditor's propensity to issue a going concern opinion.

Palmrose (2006) questioned the competence of PCAOB inspectors versus AICPA peer reviewers and find that inspectors lack expertise. However, using survey data, Daugherty and Tervo (2010) find that clients of small audit firms find inspection teams competent and professional. Roybark (2009) analyze the time lag of inspection reports issued during the first inspection cycle.[12] The author finds that, during the period 2004 to 2007, the PCAOB has made considerable progress,[13] but noted that for greater effectiveness, the time lag still needs to be further reduced.

Several researchers provide positive insights on PCAOB inspections. Hermanson, Houston, & Rice (2007) provide the first descriptive insight into PCAOB inspections of triennial audit firms. For inspections conducted during the first inspection cycle for the period ending July 13, 2006, they find that 60 percent of firms had audit deficiencies and 72 percent had quality control defects (QCD). Additionally, of the 189 firms with audit deficiencies, 188 also had QCDs and 39 of the 127 firms, with no audit deficiencies, had QCDs. The authors report that the deficiencies resulted primarily from insufficient substantive testing (80%); inadequate test of controls (5%); and lack of evidence supporting the audit opinion (15%). Also, 22 firms had their clients issue restated financial statements pursuant to the inspections. This analysis offers some evidence that inspectors identify some significant auditing issues and help prevent serious accounting failures.

[12] Defined as the mean number of days to complete the inspection report, from last date in field to issuance of inspection report (Roybark 2009).
[13] On average the time lag for annual firms (4 Big4 firms and 4 National firms) changed from 303 to 157 days. The time lag reduction for all triennial firms went from 398 to 155 days. However, triennial firms with deficiencies changed from 416 to 221, while for firms with no deficiencies the time lag changed from 272 to 150 days (Roybark 2009).

Hermanson and Houston (2008) reviewed 56 QCDs disclosed for 20 audit firms with initial inspections conducted as of May 11, 2006. They report that the most important QCDs involved audit performance and independence failures.[14] They document that firms with disclosed QCDs had fewer partners and staff, lower partner/client ratio, and lower professional staff/client ratio than firms to whom QCDs were not yet disclosed. The authors suggested that smaller audit firms may have trouble maintaining their quality control system because of their lean structure.

Using a sample of inspection reports of non-Big 4 firms, Gunny et al. (2009) examine the relation between audit deficiencies/serious deficiencies,[15,16] documented in the inspection reports, and auditor tenure, auditor industry expertise, and fees paid to the firms. They find that auditor tenure mitigates serious deficiencies more than audit deficiencies, but has a lesser impact than national-level industry expertise in mitigating both types of deficiencies. They also report incremental audit quality power of city-level expertise over national-level expertise in mitigating serious deficiencies, and a positive association between abnormal fees (audit and total) and the likelihood of receiving both types of deficiencies.

To determine whether auditors' quality was improving across PCAOB's registrants, Hermanson and Houston (2009) continued their analysis of inspections of triennial firms receiving their second inspection. They find that of the 116 firms receiving their 2nd inspection (as of October 23, 2008), 4 percent had audit deficiencies

[14] Main audit performance issues were technical competence; due care, and professional skepticism; concurring partner review; and auditor communications (Hermanson & Houston 2008).
[15] Examples of audit deficiencies include a failure to perform and document sufficient substantive procedures and failure to obtain and evaluate evidential matter (Gunny et al. 2009).
[16] A serious deficiency includes the auditor's failure to identify a departure from GAAP that may (if material) result in a restatement of the financial statements (Gunny et al. 2009).

and 28 percent had quality control deficiencies, as compared to 60 percent and 72 percent, respectively, during the first inspection cycle. The authors suggest that this represents a dramatic increase in audit and quality control processes. The authors note that while the number and quality of deficiencies decreased, the structure and composition of the firms remained constant, implying that positive changes were achieved without increases in human and fixed asset resources.

Abbott et al. (2011) examine clients' reaction to adverse PCAOB inspection reports of non-Big 4/non-national firms to determine whether the reports acted as signals of audit quality.[17] They provide evidence that inspection reports are perceived to be signals of audit quality, and that subsequent to the disclosure of an adverse inspection report, effective audit committees are more likely to switch auditors. Their findings suggest that PCAOB inspections are improving the perception of auditor quality.

Daugherty et al. (2011) examine whether triennially inspected auditors' involuntarily and voluntarily lose clients in the period following receipt of a deficient PCAOB report. They report a positive association between deficient reports and triennial auditors being involuntarily dismissed by their clients, and between deficient reports and auditors voluntarily resigning from their public clients. They also find that companies are more likely to hire triennial auditors with clean reports than deficient reports. These findings suggest that inspection findings signal perceived audit quality in triennial audit firms.

Research on PCAOB inspections primarily uses archival data on an ex-ante basis. Archival data does not adequately address whether market participants are influenced by

[17] An adverse report is one that contains GAAP deficiencies.

auditor's inspection results. Robertson and Houston (2010) offer preliminary insight into the informativeness of PCAOB inspection reports. In a 2x2x2 between-subject experiment, Robertson and Houston (2010), examine investors' reaction to negative auditor information disclosed through PCAOB inspection reports. Overall, the authors find that PCAOB inspections appear to be improving auditor credibility. They find that investors' expected credibility in future audit opinions are greater (lower) when inspections contain high (low) severity deficiencies; firms respond with concessions (denials); and for small (large) firms. They also find that response credibility fully mediates the association between the type of response (concession/denial) and the perceived improvement in credibility of future opinions.

This study extends Robertson and Houston (2010) research by providing further insight into the usefulness of the PCAOB inspection results to audit committee members' surrogates. The results of this study will also provide experimental evidence to compliment the archival research conducted in Abbott et al. (2011) and Daugherty et al. (2011). If the study finds that audit committee members perception and selection of a manager-recommended auditor is influenced by the auditor's inspection results as issued by a PCAOB-Like organization, overall audit quality will be impacted. Auditors who are losing clients due to inspection deficiencies will have additional incentives to make improvements to the Board's satisfaction and reduce or remove those deficiencies or defects. Alternatively, they will voluntarily or involuntarily leave the public issuer market as noted in Daugherty et al. (2011).

## CHAPTER 3: THEORY AND HYPOTHESES DEVELOPMENT

This chapter briefly discusses Agency Theory, Institution Theory, and Audit Quality, and develops the hypotheses.

### The Agency Perspective

Agency Theory asserts that management, as an agent of owners, is opportunistic and acts in its own best interests and not in the best interests of the principal. Therefore, owners have incentives to put control mechanisms in place to monitor managers' opportunistic behavior and to reduce the costs of information asymmetry.[18] Likewise, managers also have incentives to use these same monitoring devices to signal to owners the quality of the information they are providing (Jensen & Meckling, 1976, Fama, 1980, Fama & Jensen, 1983).[19] Thus, engaging monitoring devices are in the best interests of all parties. This leads to a demand for monitoring from Boards of directors (Fama, 1980; Watts & Zimmerman, 1986) and audit committees (Pincus, Rusbarsky, & Wong, 1989; Menon & Williams, 1994) to reduce information asymmetry, moral hazard, adverse selection, shirking, and agency costs.

Agency theory posits that due to the separation of management and ownership, shareholders require protection from management (Jensen & Meckling, 1976, Fama, 1980, Fama & Jensen, 1983). Therefore, Boards exist, and provide oversight functions,

[18] Owners' incentives include agency cost due to information asymmetry.
[19] Managers' incentives include agency cost due to discounting of firm value.

to protect shareholders interest. As a subset of the Board of Directors, audit committees assume an important role in corporate governance. Some of their oversight functions include overseeing financial reporting, internal controls to address key risks, and auditor activity (DeZoort et al., 2002). Stakeholders generally look to the audit committee to curtail the actions of management, and expect audit committee effectiveness to be managed through regulatory or self-regulatory measures (Gendron & Bedárd, 2006).

To some extent, an agency approach to ACE (independent ACM, financially literate members, direct auditor monitoring) has been mandated through regulatory and professional avenues (e.g. BRC, SOX and national stock exchanges). More recently, stakeholders are interested in the self-regulatory measures of ACE, AC processes, and the behavior of individual ACM (Gendron & Bedárd, 2006).

Agency Theory suggests that ACM should be influenced by factors believed to affect agency costs, but this is not always the case (Kalbers & Fogarty, 1993, 1998; Spira, 2002). The accounting literature often uses an Agency Theory framework, suggesting that ACM are effective in carrying out their duties and reduce information asymmetry between principal and agents; however, the accounting literature often does not consider internal or external factors and organizational pressures that may reduce ACE (Kalbers & Fogarty, 1993, 1998). Audit committee members' ability to provide effective oversight is limited by nature. They meet infrequently with time constraints, deal with complex issues, provided with a limited or an overload of second-hand information (often through management), often have less knowledge of the company's operation, controls and reporting than management, and are usually members of more than one Board (DeZoort et al., 2002). Therefore, it is possible that although audit committees may appear,

structurally, to follow an agency perspective, the actions of its members may follow an institutional perspective.

Current research in audit committee processes is inconclusive as to whether audit committee members use an Agency or Institutional perspective in performing their duties (CKW, 2008, 2010; Beasley et al., 2009; Cohen et al., 2010).

**The Institutional Perspective**

There are basically two schools of Institution Theory; the classic or historical Institutionalism and the new or Neo-Institutionalism. The classical view of Institutionalism concentrates on the effects of the internal environment on institutions. Work by the early scholars of Neo-Institutionalism (Meyer & Rowan, 1977; DiMaggio & Powell, 1983; Scott, 1987), focus on the external environment, the interaction of the internal and external environment, sociological approaches to institutions, and institutional isomorphism (or homogeneity). Meyer and Rowan (1977) suggest that corporate governance structures in organizations are "loosely coupled" with management and tend to become "symbolic displays of conformity and social accountability" (as cited in Kalbers & Fogarty, 1998, p. 131). Under the new form of Institution Theory, managers actually perform the operating processes of the organization from which observable governance structures are loosely coupled (Kalbers & Fogarty, 1998). Pursuant to Scott (2008), under Institution Theory, organizations work to enhance or protect their legitimacy, so audit committees' existence as a control mechanism may not be related to its effectiveness (expected outcomes), but may be ceremonial to satisfy constituents. The theory also suggests that attainable outcomes are primarily due to internal factors (e.g. management) rather than external structures (corporate governance).

According to DiMaggio and Powell (1983) various forces in the environment act to morph corporate governance towards homogeneity in the institutional environment. The authors categorize these forces into three isomorphic processes, which may act together or separately within an organization: Coercive, Mimetic and Normative. Coercive processes stems from regulatory changes e.g. New York Stock Exchange [NYSE], NASDAQ, SEC or SOX. Corporate mimicry is an attempt to follow the guidelines of other (usually larger) organizations or structures. Mimetic processes may come through formal or informal channels, through industry guidelines or by interaction through interlocking boards of directors. The normative process emanates primarily from the professional organizations or other members in the profession, for example, AICPA, external and internal auditors (DiMaggio & Powell, 1983).

Institution Theory is well known in accounting; it has been used in prior literature to explain the choice of accounting methods (Mezias, 1990), the use of accounting by organizations in the public sector (Covaleski & Dirsmith, 1991), and adoption of innovative technologies (King, et al., 1994). However, when corporate scandals plagued the country in the presence of strong governance structures (for example, the audit committee members of Enron and WorldCom were financially literate, independent directors), Institution Theory was introduced in the accounting literature to help explain audit committee effectiveness (CKW, 2008, 2010; Beasley et al., 2009; Cohen et al., 2010).

This paper posits that new Institutionalism may explain audit committee members' behavior. Audit committees of small public companies, in an attempt to

convey legitimacy and homogeneity, may function ineffectively through a combination of Coercive, Mimetic and Normative processes.

## Audit Quality

The demand for an independent audit is well established in the literature (Fama, 1980; Wallace, 1980; Chow, 1982; Watts & Zimmerman, 1986). High quality audits reduce agency costs, information asymmetry and moral hazard problems (Jensen & Meckling, 1976; Watts & Zimmerman, 1983, 1986), thereby increasing financial reporting quality and investors' confidence in the market (Teoh & Wong, 1993; Beatty 1989; Krishnan 2003a, 2003b). With the increased responsibilities placed on corporate governance, and audit committees in particular, audit committee members have incentives to use all available resources to assist them in hiring a quality auditor.

One perspective is that an auditor provides a quality audit if he issues the appropriate audit reports. However, audit quality is a complex phenomenon with many dimensions, making it difficult to define and measure (Simunic, 1980; DeAngelo, 1981; Barton, 2005; Ghosh & Moon, 2005).

The legal view of audit quality defines audit quality as dichotomous, audit failure or no audit failure. A widely cited definition of audit quality in the literature is provided by DeAngelo (1981). The author defines audit quality as the market assessed joint probability that the auditor will both discover and report material financial statement errors if they exist. This definition is deemed to be intuitive and has been well received in the literature but it does not capture the multiple factors affecting an auditor's capacity to detect misstatement (Francis, 2011). Also, it implies fraud, as an auditor who detects, but fails to report, a material misstatement is committing fraud (Francis, 2011). Watkins,

Hillison, & Morecroft (2004) agree that DeAngelo (1981) definition captures critical attributes to understanding the influence of audit on financial statement information, and hinges on the market's perception of the auditor's competence and perceived degree of independence, but does not capture all the dimensions of audit quality.

Watkins et al. (2004, Figure 1) present an audit quality framework that incorporates and relates the various dimensions of audit quality. The authors show auditor reputation (perceived competence and perceive independence) and auditor monitoring strength (auditor competence and auditor independence) as inputs to audit quality. These inputs produce information credibility (degree of confidence user places on information) and information quality (how well the information reflects true economic circumstances), the products of audit quality. The final observable output of audit quality is the clients' financial statements.

Francis (2011) extends this schema by proposing a continuum view of audit quality. He shows how financial statements can be used to infer variations in audit quality along a continuum and presents the underlying research design for this analysis.[20] Basically, the design links earnings quality as a function of audit characteristics (audit-related factors) while controlling for nonaudit factors. The design tests whether systematic differences in earnings quality are conditional on certain audit factors will help understand audit-quality differences. The audit-related factors in audit research are summarized in Francis (2011, Table 1).[21] They are Audit inputs (audit tests and engagement personnel), Audit processes (engagement team's implementation of the audit

[20] Francis (2011) also lists the audit report as another primary observable outcome of the audit process.
[21] The summary is based primarily on supply-side archival research. For literature on the demand side for differential audit quality, interested readers may refer to Beatty (1989), DeFond (1992), Francis et al. (1999), Chaney and Philipich (2002), and Caban et al. (2008).

tests), Accounting firms (team work; hiring, training, compensation of auditors; development of testing procedures; issuance of audit reports), Audit industry and Audit markets (accounting firm as an industry, industry structure affects markets and economic behavior), Institutions (e.g. SEC, PCAOB, AICPA affect auditing and incentives for quality), and Economic consequences of audit outcome.

The various definitions of audit quality, used in the literature, measure the auditor's competence and independence (actual and perceived) in varying degrees (Watkins et al., 2004). Some audit quality measures used in prior accounting research include brand name and reputation (Simunic, 1980; Craswell, Francis, & Taylor, 1995; Barton, 2005), auditor tenure (Carcello & Nagy, 2004; Ghosh & Moon, 2005), audit firm size (DeAngelo, 1981; Francis, 1984), fees (DeFond, Raghunandan, & Subramanyam, 2002), and auditor expertise (Bonner & Lewis, 1990; Solomon, Shields, Whittington, 1999). In this paper, I define audit quality as the audit committee members' confidence that the auditor will both discover (measure of competence) and report (measure of independence) material misstatements, if they exist in the company's accounting systems.

The study uses the auditor's PCAOB inspection results as a proxy for auditors' competence and the nature of a manger-auditor affiliation to measure auditors' independence. I posit that audit committee members who demonstrate a will to act and expend effort in identifying and selecting auditors are diligently performing their duty using an agency perspective. Alternatively, audit committee members who appear to passively accept manager-recommended auditors without performing due diligence are operating under an institutional perspective.

**Audit Quality Indicator 1: PCAOB Inspection Results**

For purposes of this study, an auditor is competent if he/she conducts an audit pursuant to the PCAOB's Generally Accepted Auditing Standards (GAAS) and the auditing firm's system of quality control is effective. The general standards of GAAS require (1) adequate technical training and proficiency (2) independence in mental attitude, and (3) use of due professional care in performing the audit and preparing the report (PCAOB AU 150.02). Quality control is effective when "a firm's system of quality control encompasses the firm's organizational structure and the policies adopted and procedures established to provide the firm with reasonable assurance of complying with professional standards" (PCAOB QC 20.05). An auditor may be perceived as incompetent if he/she fails to comply with GAAS and/or maintain an ineffective quality control system.

The PCAOB registers public auditors, establishes GAAS, and conducts inspections and investigations. The Board also has the unprecedented power as a non-governmental agency to enforce compliance with SOX, rules of the Board, other professional standards, securities' laws pertaining to auditors, and the preparation and issuance of financial statements (SOX, 2002). The Board conducts inspections of public accounting firms offering an independent evaluation of the audit firms' quality control functions, primarily in the form of inspection reports.[22] Prior to SOX, an independent perspective on the internal operations of public auditors was not readily available to the general public and most public companies. The inspection of public accounting firms is

[22] The Board conducts inspections of all registered accounting firms that regularly issue auditor reports for companies and other issuers (850 firms as of January 18, 2011), as well as those firms that play a substantial role in the audit of issuers. As of January 18, 2011, the PCAOB reported 2,388 registrants (1,581 Domestic, 807 Foreign). Registrants who do not perform audit work are not inspected (www.pcaob.org).

regarded as the PCAOB's fundamental tool in impacting auditing and investors' confidence in audited financial reporting (Goelzer, 2005). The inspection team assesses firms' compliance with the Act, PCAOB rules, SEC rules, and professional standards, in connection with the firm's performance of audits, issuance of audit reports, and related matters involving issuers (SOX, 2002).

PCAOB inspectors perform risk-based inspections of public accounting firms and identify and report on audit and quality control deficiencies. The inspectors have the regulatory authority to review auditors' work papers, clients' files, and personnel files. Disciplinary sanctions, that include revocation of the ability to conduct public company engagements, provide an incentive for CPA firms to conform to accounting and auditing standards. An auditor cited with audit engagement deficiencies (AED) and quality control defects (QCD) may be perceived as providing lower audit quality than does a firm with no AED or QCD, as the findings can reflect on the firm's ability to discover and report on material misstatements.

PCAOB inspection reports provide a way for committee members to gather information on auditors. PCAOB board member Goelzer (2008) encourages audit committee members to use the PCAOB as a resource tool, while the NYSE (2004) requires audit committee members to discuss PCAOB inspection reports with their auditors. Research on whether PCAOB inspection reports are useful is mixed. Abbott et al. (2011) and Gunny et al. (2009) find that ACM use the inspection results in making auditor selection and retention decision while Lennox and Pittman (2010) find it uninformative when compared with the AICPA peer review process.

An effective audit committee member will incorporate evidence that the auditor is competent and will not hire the auditor otherwise. Participants in this study are provided with inspection results (favorable/unfavorable) issued by a PCAOB-like organization, under the assumption that inspection reports provide evidence of the auditor's ability to conduct the audit. I predict that ACM incorporate inspection results, in evaluating auditors, consistent with agency perspective. Consequently, the results of the auditor's inspection results will affect the audit committee member's perception of audit quality and the audit committee member's auditor selection decision.

*H1a: Audit committee members' perception of audit quality is positively associated with favorable PCAOB-like inspection results.*

*H1b: Controlling for perception of audit quality, audit committee members are more likely to engage an auditor when the PCAOB-like inspection results are favorable.*

Alternatively, a lack of association with inspection results will be consistent with an institutional perspective.

**Audit Quality Indicator 2: Manager-Auditor Affiliation**

The requirement for auditors to be independent of their clients is very important to regulators and standard setters. Both the AICPA Code of Professional Conduct and Generally Accepted Auditing Standards (GAAS) require auditors to be independent in *fact* and in *appearance*. The SEC asserts that "an auditor is not independent if a reasonable investor, with knowledge of all relevant facts and circumstances, would conclude that the auditor is not capable of exercising objective and impartial judgment" SEC (2000, p. 3). Independence in *fact* is not directly observable; it relates to the

auditor's mental attitude during the audit (SEC, 2000). The SEC and the independence literature often use external indicators, independence in *appearance* to infer independence in *fact*. Auditor independence is an important element of audit quality. In the aftermath of several corporate scandals, the SEC and Congress (through SOX) mandated a number of reforms aimed at improving the appearance of auditor independence, including mandatory audit partner rotation; prohibition of certain non-audit services by incumbent auditors;[23] and the 1-year cooling off period before auditors can work for their audit clients in a supervisory role (SEC, 2000, 2003; SOX, 2002). Whether or not these reforms are needed is often debated in the literature (Geiger, North, & O'Connell, 2005; Ghosh & Moon, 2005; Krishnamurthy, Zhou, & Zhou, 2006; Daugherty & Dickens, 2010). However, some scholars find that investors react negatively to the perceived impairment of auditor independence on audit quality (Dopuch, King, & Schwartz, 2003; Davis & Hollie, 2008) and that the market prices the perceived impairment (Krishnamurthy et al., 2006).

One element of SOX (2002) that addresses the appearance of independence is the mandatory one-year cooling-off period before auditors (regardless of rank), who were former members of the client's engagement team, can accept a supervisory accounting position or an oversight position with the client. In the academic literature some empirical studies find that the hiring of ex-employees of a company's external auditors does not impair auditor independence (Geiger et al., 2005; Daugherty & Dickens, 2010), while other studies suggest a possible impairment of independence in the period

[23] Prohibited non-audit services as of May 6, 2003 include bookkeeping or similar services; financial information systems design and implementation; appraisal or valuation services; actuarial services; internal audit outsourcing services; management functions; human resources; broker or dealer, investment adviser, or investment banking services; legal services; expert services; and certain tax services (Final Rules Release No. 33-8183 (SEC 2003).

following the hiring of a former employee of a company's external auditor (Dowdell & Krishnan, 2004; Menon & Williams, 2004). While the current one-year cooling off period does not differentiate among auditor's rank, research shows that the time between leaving the audit firm and being employed by the company, as well as the former auditor's position (e.g. partner or staff), impact user's perception of auditor independence (Dowdell & Krishnan, 2004).

This research presumes that an effective ACM will look for perceived impairment of auditor independence in assessing audit quality. I manipulate the nature of a previous manager-auditor affiliation (absent/present) using an allowed variation of the "revolving-door" concept. The previous manager/auditor association is expected to be relevant to ACM in the evaluation of audit quality. Benefits of hiring a former auditor include immediate experience, expertise and knowledge about the company. However, the manager/auditor affiliation may enable the manager to anticipate audit practices, potentially compromising the quality of the audit (Beasley, Carcello, & Hermanson, 2000; Menon & Williams, 2004). Further, the manager and auditor may have personal relationships that exist because of the previous affiliation which could influence the auditor's independence (Menon & Williams, 2004). A cooling off period reduces the likelihood that audit quality will be reduced or investors will perceive auditor independence as compromised.[24]

[24] As of November 4, 2004, the NYSE and NASDAQ rules mandate a three-year "cooling off" period before former auditors can serve on the company's board or sub-committees (NYSE Section 303A(2)(b)(iii); NASDAQ Rule 4200(a)(15)(F)).

Whether audit committee members are concerned with manager-auditor affiliations and the related impact on audit quality remains an empirical question. Consequently, assuming an agency perspective, I present the following hypotheses:

*H2a: Audit committee members' perception of audit quality is positively associated with the absence of a previous manager-auditor affiliation.*

*H2b: Controlling for perception of audit quality, audit committee members are more likely to engage an auditor in the absence of a previous manager-auditor affiliation.*

Alternatively, no results will be consistent with audit committee members acting under an institutional perspective.

**Interaction: Inspection Results and Manager-Auditor Affiliation**

Audit committee members have incentives to act diligently in selecting auditors. Increased attention placed on corporate governance, specifically audit committees, motivates ACM to be prudent in performing this stated function. ACM may suffer reputation and financial costs if the external auditor they appoint provides audit quality that results in poor financial reporting quality. Audit committees are required by law to appoint, terminate, compensate and supervise external auditors. Agency Theory and the demand for auditing suggest that diligent ACM will engage quality auditors to help reduce agency cost and ensure financial reporting integrity (DeAngelo, 1981; Watts & Zimmerman, 1986). Audit quality has often been defined as the market's perceptions of auditor competence and independence.

The PCAOB inspection results offer independent information regarding an auditor's competence in providing quality audits. Based on a sample of audit

engagements, PCAOB inspectors document the auditor's compliance with GAAS and the quality of the firm's control systems. Auditors who fail to comply with GAAS and/or who have poor quality control systems are less likely to provide high audit quality.

The nature of an affiliation between the manager and the auditor may potentially impair auditor independence in *fact* and in *appearance*. Auditing standards require auditors to communicate with the audit committee regarding the firm's independence. Audit committee members should be concerned with ensuring auditor independence. External auditors are required by law to be independent of their clients (SEC, 2000, SOX, 2002), and the perception of auditor independence is of interest to regulators (SEC, 2000, 2003; SOX, 2002) and market participants (Krishnamurthy et al., 2006; Davis & Hollie, 2008).

Audit committee members will be more skeptical of the auditor's ability to detect material misstatements provided they exist in the client's financial statements if the auditor fails to comply with GAAS and maintains an inferior system of quality controls. ACM may believe that an auditor of this caliber will be more likely to impair his independence in *fact* given his affiliation with management (in *appearance*). Thus, ACM will question the auditor's ability to report the client's financial statement misstatements, if they exist, and will be less likely to select the auditor to conduct the audit. Conversely, ACM perception of the auditor's ability to detect and report misstatements competently and objectively will be enhanced by the auditor's favorable inspection results in the absence of a manager-auditor affiliation. It will be interesting to test whether audit committee members eliminate an auditor for impairment of audit quality (inspection

results or previous manager-auditor affiliation). Assuming an agency perspective, I pose the following hypotheses:

*H3a: Audit committee members' perception of audit quality will be highest when the auditor has favorable PCAOB-like inspection results and when a previous manager-auditor affiliation is absent.*

*H3b: Controlling for perceptions of audit quality, audit committee members' are most likely to engage an auditor when the auditor has favorable PCAOB-like inspection results and when a previous manager-auditor affiliation is absent.*

## CHAPTER 4: EXPERIMENT AND METHODOGY

This chapter discusses research design, participants, instrument development, experimental task, data and analyses used in the study.

### Research Design

In this experimental research, participants assume the role of an audit committee member having to evaluate and make a recommendation on hiring an auditor. The experimental setting is one in which management has recommended the auditor.[25] The study employs a 2x2 between-subject experimental research design in which participants receive one of four cases. The information included in each case is identical except for the manipulated independent variables. The study manipulates two attributes of audit quality, often used in the literature to define auditor quality: perceived competence and perceived independence (Watkins et al., 2004). Perceived competence is operationalized using the auditors' PCAOB-like inspection results, manipulated at two levels (Favorable/Unfavorable). Perceived independence, measured by a previous manager-auditor affiliation, is also manipulated at two levels (Absent/Present). Figure 1 presents a visual representation of the research design.

(see fig. 1)

[25] Management's recommendation is not manipulated in this research. It is unlikely that ACM will require management to work with auditors that management does not recommend. Thus, this experiment evaluates the diligence of ACM when management recommends the auditor. Because ACM are charged with financial reporting oversight, the AC is responsible for employing managers who will evaluate the auditors. Thus, in this research, ACM are placed in the situation of rejecting the recommendation of someone, e.g. management, over which the AC has oversight.

Figure 2 demonstrates the predicted effects of the two manipulated variables on the audit committee members' perception of audit quality. I expect similar effects of the predictors on the auditor selection decision (not illustrated).

(see fig. 2)

## Participants

Target participants are professionals over thirty years old with three or more years of full-time work experience in Finance, Accounting and/or Management. To qualify as participants, respondents had to correctly identify on which financial statement "inventory" would appear, and the *standard* balance for sales revenues on a company's financial statement. Qualifying participants serve as proxies for audit committee members serving on the board of companies that engage triennial auditors to perform the companies' annual financial statement audit and the audit of internal control over financial reporting. Graduate level accounting students from a large southeastern university were used to pilot test the study. This group is a suitable proxy for audit committee members in a pilot test because most of the students are working professionals with relevant education and training, and thus are likely to be familiar with the roles of audit committee members, the PCAOB, auditors and managers.

## Instrument Development

### The Hypothetical Audit Firm

The hypothetical CPA firm was constructed as follows: Background data was obtained from the *Audit Analytics* database of companies that completed an audit in fiscal year 2009 and that trade in the NASDAQ small-cap capital market. All commercial banks and savings institutions (SIC codes 6021, 6022, 6029, 6035, 6036)

were removed, because financial institutions are heavily regulated and are not representative of the average publicly traded domestic companies that are audited by triennial audit firms. The remaining companies were sorted by market capitalization and those with market capitalization between $100 million and $1 billion were identified.[26] Next, the audit firms that conducted the audit for small-cap companies during 2009 were listed and the firms' characteristics from their most recent inspection reports posted on the PCAOB's website were obtained. The following characteristics for each firm were retrieved: *number and location of offices, ownership structure, the number of partners, the number of professional staff, and the number of issuers*. This information was used to construct the characteristics of the hypothetical CPA audit firm in the research instrument.

**PCAOB-like Inspection Reports**

In the current environment, audit committee members are responsible for hiring auditors. However, the extant literature finds that management, not the auditor, still controls the auditor selection process, with the audit committee acting as a figurehead (CKW, 2008, 2010; Fiolleau et al., 2010; Cohen et al., 2010). A recent field study by Fiolleau et al. (2010), finds that the manager recommends the auditor and the Chair of the audit committee "signs off" on management's recommendation. Regulation calls for the selection of auditors to be the audit committee's responsibility; therefore, ACM operating in this manner may not be considered effective.

The instrument incorporates two versions of inspection results issued by a hypothetical PCAOB-like organization named *Regulatory Public Auditor Monitoring*

[26] There were 148 unique issuers with market capitalization between $100M and $1B (range: $100.3M to $991.1M) who engaged 76 unique triennial auditors.

*Board (RPAMB)* to examine audit committee effectiveness in engaging auditors.[27] The version of the report with "*favorable*" results does not contain any audit engagement deficiencies [AED] or quality control defects [QCD].[28] The version of the report with "*unfavorable*" results contains multiple and severe AED and QCD. In this version, the firm failed to address all of the QCD findings identified by RPAMB, to the Board's satisfaction, within 12 months after initial issuance of the inspection report. Thus, the report was expanded to include the firm's QCD and was made publicly available on the RPAMB's website. The unfavorable inspection results identify AED and QCD rated most likely to have the highest perceived negative effect on audit quality and was constructed as follows. First, all unique AED from actual PCAOB inspection reports of triennial firms, issued during the period January 1, 2009 through April 29, 2010 (203 AED), and all unique actual QCD reported in expanded PCAOB inspection reports of triennial audit firms, issued as of April 29, 2010 (75 QCD) were retrieved.[29] Second, a panel of five auditing experts ranked, on a scale of one to five (1=no effect, 5=substantial effect), the perceived effect each of the 203 AED and 75 QCD had on audit quality. Third, three audit engagement deficiencies and five quality control defects with the highest average ranking were adapted and included in the unfavorable inspection report.

To ensure credibility of the instrument, two professional industry experts, a partner from a regional CPA firm and a Chief Financial Officer of a prominent NYSE

[27] The PCAOB allows the use of its name and inspection reports for many users but not on reports that have been altered in any way. Therefore, RPAMB was created in the image of the PCAOB organization with all its powers.
[28] The PCAOB also refers to these as quality control criticisms. The term "defects" is used to be consistent with prior PCAOB-related research (Hermanson et al. 2007; Hermanson and Houston 2008, 2009). These defects were not addressed by the audit firms, to the Board's satisfaction, within 12 months after the date of issuance of the initial inspection report.
[29] All inspection reports were obtained from the PCAOB website \\www.pcaob.org.

listed company read and critiqued an earlier version of the instrument. The instrument was pre-tested for comprehension and composition using senior undergraduate auditing students from a large southeastern university. Target participants were expected to take approximately twenty minutes to complete the instrument.

**Experimental Task and Instrument**

The instrument was administered online using Qualtrics.com. The full instrument distributed to participants is provided in Appendix A. Participants were randomly assigned to one of four experimental conditions to decrease the probability that any of the participants could determine the exact nature of the manipulation. All four cases were identical except for the manipulated variables: inspection results (favorable/unfavorable) issued by a PCAOB-like organization and the nature of a previous manger-auditor affiliation (absent/present). Each qualifying participant who consented to participate in the experiment received case information, the instrument, and inspection results from the auditor's most recent PCAOB-like inspection report.[30] The internet-based consent form, approved by the Institutional Research Board (IRB), is provided in Appendix B. The instrument has three sections. Section I contains general instructions and the case material, Section II lists questions specific to the case, and Section III contains manipulation checks, controls, and demographic questions (Appendix A).

The case materials in Section I includes information on the public company, CPA Firm A, audit committee responsibilities, PCAOB inspections, management evaluation of Firm A, Firm A's most recent inspection report issued by the RPAMB, and instructions

[30] Consenting participants had to correctly answer four screening questions to participate in the study. A qualify participants had to be 30 years old, have more than 3 years full-time work experience in finance, accounting, and/or management, and know the proper financial statement accounts in which inventory and sales revenues are recorded.

for participants. Participants were told the inspection results are provided verbatim from the auditor's most recent inspection report obtained from the RPAMB website.

The hypothetical company in the case is described as a small-cap U.S. manufacturing company that publicly trades on NASDAQ. It has a market cap of approximately $150 million and reported revenues of $110 million.[31] The company reports a low management turnover rate. However, in anticipation of a new division, the company hired a Chief Financial Officer (CFO) and a Director of Internal Audit (DIA), approximately thirteen months ago. In the manipulated manager-auditor affiliation condition, the new CFO and DIA were former audit partners of Firm A for five years prior to joining the client's employ. Management has immediate plans to launch a new division and is considering issuing bonds to help fund the project. The company has been audited for the past twenty years by the same regional CPA Firm. Last year, the incumbent auditor resigned because the firm restructured to focus on audits of private companies.

The Audit Committee has voted unanimously to issue a Request for Proposal (RFP) to a number of regional CPA firms to perform the company's upcoming audit. It is now the task of the Audit Committee to evaluate the firms and to recommend an auditor to the rest of the Board and to Shareholders. The hypothetical Audit Committee has three members, including the Chair. All members were appointed to the Board within the last two years, and are experienced, financially literate professionals from various business fields. Each member currently serves on a Board of at least one other company. The chair of the Audit Committee is the designated financial expert.

[31] The company is an accelerated filer with the SEC.

CPA Firm A is the first prospective audit firm being analyzed. It is a mid-size, regional accounting firm that provides auditing, tax and advisory services to private and public clients. Firm A has three offices conveniently located throughout the region. There are 30 partners and 150 professional staff members in the firm. Firm A registered with the RPAMB in December 2006 to conduct audits of public clients, and had its first RPAMB inspection in relation to its audits of public companies in 2009. RPAMB released Firm A's inspection report in January 2010. The audit service partners have an average of 20 years' experience in auditing SEC issuers. The firm is also a member in good standing of the American Institute of Certified Public Accountants [AICPA]. After reviewing the case information in Section I, participants are asked to respond to a question set in Section II and a question set in Section III.

**Dependent Variables**

The first question in Section II of the instrument forms a dependent variable, *SELECT*. It asks participants the likelihood that they will recommend Firm A conduct the company's integrated audit. The second dependent variable, *PERCEP*, comprises the scores of nine items that measure participants' perception of audit quality. The items relate to the participants' confidence in the probability that the auditor will detect and report any material misstatements, if they exist. While the items in the instrument are hypotheses-driven, an exploratory factor analysis was conducted to assess whether the items load as expected. As the participant's perception of audit quality may influence his/her recommendation decision, PERCEP is used as an independent variable in the models where SELECT is the dependent variable.

**Manipulated (Independent) Variables**

To test the hypotheses, two attributes of audit quality, a proxy for the perception of auditor competence (PCAOB-like inspection results), and a proxy for the perception of auditor independence (previous manager-auditor affiliation) are manipulated. The first variable, *INSPECTION* (favorable /unfavorable), is operationalized by providing participants with either *favorable* results (no AED and no QCD) or *unfavorable* results (multiple and severe AED and QCD) reported on a PCAOB-like inspection report. The second independent variable, *AFFILIATION* (absent/present), is operationalized by describing the CFO and DIA of the company as former audit partners of the prospective audit firm who worked with the engagement partner and key employees of the audit firm ("*affiliation present*" condition); in the "*affiliation absent*" condition, no personal or business affiliation exist between management and the audit firm. As management's recommendation of the auditor is another factor audit committee members consider in assessing audit quality, these variables are manipulated in an environment in which management recommends the auditor in all four scenarios.

**Covariates**

Based on prior research, a number of covariates were measured. The scores on responses from section III form the covariates. The study examines the effect of selected covariates on the dependent variables. The participants' age (AGE), gender (GENDER), education (DEGREE), level of education (EDUCATED), employment status (EMPLOY), and professionally employed (WXPYRS) have been found to affect an individual's perception and action (Beasley et al., 2009). The participant's personal attributes, as well as his/her level of professional experience, exposure, knowledge and/or

preference for the PCAOB, inspection reports, and auditor independence may also affect the participant's perception and action (Abbott & Parker, 2000; DeZoort et al., 2002; DeZoort, Hermanson, & Houston, 2003). Therefore, the study includes the following covariates in the models: whether the participant has experience in finance, accounting and management (FAMLIT); has at least one year experience as an external auditor (EXTAUDIT), a certified financial officer (CFO), a Board member (BDEXP), and an audit committee member (ACEXP); is a Certified Public Accountant (CPA); has a professional designation (CERTIFY); has some knowledge of SOX (SOX); is familiar with the PCAOB (PCAOBFAM); supports the PCAOB relative to other auditor monitoring processes (SUPPORT); and supports more than one-year cooling-off period before an auditor could accept a position with a former client (COOLOFF). All variables used in this paper are summarized and described in Table 1.

(see Table 1)

## Sample and Data Analysis

### Sample Selection

The instrument was emailed to a large population of professionals throughout the United States. A total of 5,419 individuals entered the survey, 785 chose not to participate, and 3,894 were screened out.[32] Four statements are included in the instrument to gauge the effectiveness of the independent variable manipulations and to determine whether the respondents read and understood the case. First, participants are asked to recall the outcome of the audit firm's most recent inspection report and to identify the

[32] Respondents were screened out for not having more than three years work experience in Finance, Accounting or Management (1,056), for being under age 30 (52), and for failing to correctly answer both of these financial statement questions (2,786): 1) on which financial statement would inventory appear?, 2) what is the standard balance for Sales Revenues?

nature of the prior association between the CFO of the company and the audit firm. The next two questions ask participants how many members are on the audit committee, and whether management recommends the audit firm being analyzed. Participants who fail to correctly answer any of the four questions were excluded from the analyses.

Of the 740 participants who qualified to participate in the experiment, 571 failed the manipulation check questions, 25 dropped out, and 26 were rejected for providing inconsistent responses or speeding through the survey.[33] The final sample consists of 118 qualifying participants who correctly answered all check questions and whose responses are deemed to be valid. Table 2 presents a summary of the sample selection.

(see Table 2)

**Data Analysis**

Data analysis is conducted to examine the effects of PCAOB inspection results and the nature of a previous manager-auditor relationship on participants' perception and selection of an auditor. I test the hypotheses using comparison of means (t-tests), two-way analysis of variance (ANOVA), two-way analysis of covariance (ANCOVA), and multivariate analysis of variance (MANOVA). The hypotheses are presented under the assumption that participants' individual perceptions may influence their auditor selection decision, but there is a strong possibility that participants' perception decision was made to support their selection decision (perception and selection are related), or that perception and selection decisions were simultaneously determined. Consequently, I also use MANOVA, followed up with ANOVA, on the dependent variables to test the hypotheses. MANOVA is used to test group differences among several related

[33] Qualified respondents who passed all check questions but completed the instrument in 9 minutes or less were deemed to have sped through the survey.

dependent variables simultaneously. To test the robustness of my results, I conduct a number of additional analyses including comparison of individual cell means, chi-square tests, binary and multinomial logistic regressions, simultaneous systems of equations, and univariate and multiple regressions.

**Test of Hypotheses- Perception**

The perception hypotheses (H1a, H2a, and H3a) examine whether audit quality indicators impact audit committee members' perception of audit quality. The initial univariate model is presented below. I use ANOVA to test this model.

$$PERCEP_i = \beta_0 + \beta_1 INSPECTION_i + \beta_2 AFFILIATION_i + \beta_3 INSPECTION_i * AFFILIATION_i + \varepsilon_i \quad (1)$$

where the variables in the model are defined as follows:

PERCEP = participants' perception of overall audit quality measured by the composite score of 9 scaled items;

INSPECTION = indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise;

AFFILIATION = indicator variable equal to 1 if there is no prior affiliation between management and auditor, 0 otherwise;

$\varepsilon$ = an error term.

Next, I expand the initial model by adding covariates to control for factors that may influence participants' perception. I test this model using ANCOVA.

$$\begin{aligned} PERCEP_i = {} & \beta_0 + \beta_1 INSPECTION_i + \beta_2 AFFILIATION_i \\ & + \beta_3 INSPECTION_i * AFFILIATION_i \\ & + \beta_4 AGE_i + \beta_5 GENDER_i + \beta_6 DEGREE_i \\ & + \beta_7 EDUCATED_i + \beta_8 EMPLOY_i + \beta_9 WXPYRS_i \\ & + \beta_{10} FAMEXP_i + \beta_{11} EXTAUDIT_i + \beta_{12} CFO_i + \beta_{13} BDEXP_i \end{aligned}$$

$$+ \beta_{14} ACEXP_i + \beta_{15} CPA_i + \beta_{16} CERTIFY_i + \beta_{17} SOX_i$$

$$+ \beta_{18} PCAOBFAM_i + \beta_{19} SUPPORT_i + \beta_{20} COOLOFF_i + \varepsilon_i \quad (2)$$

Where the additional variables in the above model are defined as follows:

| | | |
|---|---|---|
| AGE | = | the participant's actual age (in years); |
| GENDER | = | indicator variable equal to 1 if the participant is male, 0 otherwise; |
| DEGREE | = | indicator variable equal to 1 if the participant has an Associates degree or higher, 0 otherwise; |
| EDUCATED | = | indicator variable equal to 1 if the participant has a Master's degree or higher, 0 otherwise; |
| EMPLOY | = | indicator variable equal to 1 if the participant is employed, 0 otherwise; |
| WXPYRS | = | indicator variable equal to 1 if the participant has more than 10 years professional work experience, 0 otherwise; |
| FAMEXP | = | indicator variable equal to 1 if the participant has more than 3 years professional work experience in Finance, Accounting, and Management, 0 otherwise; |
| EXTAUDIT | = | indicator variable equal to 1 if the participant has at least 1 year experience as an external auditor, 0 otherwise; |
| CFO | = | indicator variable equal to 1 if the participant has at least 1 year experience as a CFO, 0 otherwise; |
| BDEXP | = | indicator variable equal to 1 if the participant has at least 1 year Board experience, 0 otherwise; |
| ACEXP | = | indicator variable equal to 1 if the participant has at least 1 year Audit Committee experience, 0 otherwise; |
| CPA | = | indicator variable equal to 1 if the participant is a CPA, 0 otherwise; |
| CERTIFY | = | indicator variable equal to 1 if the participant has a professional designation, 0 otherwise; |

SOX = indicator variable equal to 1 if participant is familiar with SOX, 0 otherwise;

PCAOBFAM = is a composite score of the participant's level of familiarity with the PCAOB and the PCAOB inspection report each measured on a 7-point Likert-type scale (max=14);

SUPPORT = indicator variable equal to 1 if the participant supports the PCAOB over another monitoring oversight process, 0 otherwise;

COOLOFF = indicator variable equal to 1 if participant supports more than a 12-month cooling-off period before former auditor could accept a position with a client, 0 otherwise;

Positive and significant coefficients on $\beta_1$, $\beta_2$, and $\beta_3$ in the above equations will support the perception hypotheses. A lack of significant results on these coefficients will suggest that audit committee surrogates are operating under an institutional perspective. With respect to the covariates, I expect employed participants with more working experience and education to show greater diligence and use the manipulated audit quality indicators in their audit quality perception decision. Therefore, I predict a positive relationship between DEGREE, EDUCATED, EMPLOY, WXPYRS, FAMEXP and PERCEP. For similar reasons, I expect participants with board (BDEXP) and audit committee experience (ACEXP) to be positively associated with PERCEP. Audit committee surrogates who identify with management/auditors may rely on management's/auditors' judgment and expertise and may be less likely to be influenced by the audit quality indicators. Therefore, I expect the variables EXTAUDIT, CFO, CPA, and CERTIFY to be negatively correlated with PERCEP. I make no predictions on the variables AGE, GENDER, SOX, and PCAOBFAM. Individuals familiar with SOX or the PCAOB may or may not support the regulations and/or the PCAOB inspection process. However, I do expect support for the PCAOB (SUPPORT), or a

preference for more than one-year cooling-off period (COOLOFF) to be positively associated with audit quality perception.

Additionally, I perform the following planned comparisons on cell means for PERCEP to compare favorable and unfavorable inspection results (H1a), and the absence versus the presence of a prior manager-auditor affiliation (H2a):

Cell 1, Cell 3 > Cell 2, Cell 4

Cell 1, Cell 2 > Cell 3, Cell 4

Where

Cell 1 = AAFV- favorable inspection report and prior management-auditor affiliation absent

Cell 2 = AAUF – unfavorable inspection report and prior management-auditor affiliation absent

Cell 3 = APFV- favorable inspection report and prior management-auditor affiliation present

Cell 4 = APUF – unfavorable inspection report and prior management-auditor affiliation present

**Test of Hypotheses- Selection**

The selection hypotheses (H1b, H2b, and H3b) examine whether audit quality indicators impact audit committee members' selection of auditors, while controlling for audit quality perception. I begin with a simple ANCOVA model with PERCEP as the only covariate in the model.

$$SELECT_i = \beta_0 + \beta_1 INSPECTION_i + \beta_2 AFFILIATION_i + \beta_3 INSPECTION_i * AFFILIATION_i + \beta_4 PERCEP_i + \varepsilon_i \quad (3)$$

Where

SELECT = the likelihood that participants' will recommend the auditor; measured on a 7-point Likert-type scale, where 1 = extremely unlikely to 7 = extremely likely,

and all other variables in the above models are previously defined.

Then, I extend the model to include additional covariates that may impact audit committee members' selection decision.

$$SELECT_i = \beta_0 + \beta_1 INSPECTION_i + \beta_2 AFFILIATION_i + \beta_3 INSPECTION_i * AFFILIATION_i + \beta_4 PERCEP_i + \beta_5 AGE_i + \beta_6 GENDER_i + \beta_7 DEGREE_i + \beta_8 EDUCATED_i + \beta_9 EMPLOY_i + \beta_{10} WXPYRS_i + \beta_{11} FAMEXP_i + \beta_{12} EXTAUDIT_i + \beta_{13} CFO_i + \beta_{14} BDEXP_i + \beta_{15} ACEXP_i + \beta_{16} CPA_i + \beta_{17} CERTIFY_i + \beta_{18} SOX_i + \beta_{19} PCAOBFAM_i + \beta_{20} SUPPORT_i + \beta_{21} COOLOFF_i + \varepsilon_i, \quad (4)$$

Where all variables in the above model are previously defined. I expect the coefficients on $\beta_1$, $\beta_2$, $\beta_3$, *and* $\beta_4$ to be positive and significant, supporting an agency perspective. Insignificant results will support an institutional perspective.

Similar to the perception hypotheses, I perform the following planned comparisons on cell means for SELECT to compare favorable inspection report and unfavorable inspection report (H1b), and manager-auditor affiliation absent and manager-auditor affiliation present (H2b):

Cell 1, Cell 3 > Cell 2, Cell 4

Cell 1, Cell 2 > Cell 3, Cell 4

where the cells are previously defined.

## CHAPTER 5: RESULTS

In this chapter, I present descriptive statistics and the results of factor analysis and hypotheses testing, plus additional analyses.

### Factor Analysis

While the items in the instrument are hypotheses-driven, I conduct an exploratory factor analysis (FA) to assess whether the nine items, relating to participants' level of confidence in the audit firm,[34] load as intended (see Appendix A for the full instrument). I employ the principal-axis factoring method (PAF) with direct oblique rotation on nine items to obtain an optimal factor solution. Prior to performing PAF, the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix revealed positive coefficients of 0.4 and above, indicating that the items are measuring the same underlying construct. The Kaiser-Meyer-Olkin value of 0.924, exceeds the recommended value of 0.6 (Kaiser, 1970, 1974), and the Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix.

Principal axis factoring revealed the presence of two factors with eigenvalues exceeding 1, explaining 74.27 percent and 11.38 percent of the variance, respectively.[35]

[34] Principal component analysis (PCA) and Factor Analysis (FA) are two common data reduction techniques. In this paper, I chose to use FA as recommended by Tabachnick and Fidell (2007). They state, 'If you are interested in a theoretical solution uncontaminated by unique and error variability….FA is your choice. If, on the other hand, you simply want an empirical summary of the data set, PCA is the better choice' (p.635).

[35] The eigenvalues of the first and second factor are 6.68 and 1.02, respectively.

Inspection of the screeplot revealed a clear break after the first factor. Using Catell's (1966) scree test, one factor was retained for further investigation. A one-factor solution was further supported by the results of Parallel Analysis,[36] which shows only one factor with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (9 variables x 118 respondents).

The one-factor solution explains 74.27 percent of the variance with all nine items loading substantially (0.606 to 0.944) on one factor as shown in Table 3.[37] The optimal scores of this latent factor, using the regression method, forms a secondary measure for perception of audit quality. Reliability of the measurement scale report a Cronbach's alpha of .954 with inter-item correlation among the scale items ranging from .409 to .929.

(see Table 3)

**Descriptives**

Table 4 presents relevant information about the participants. The demographic information in Panel A reveals that the ratio of male to female participants is 1.2:1 with ninety-two percent of participants under 65 years and 31percent having a graduate degree. Panel B reveals participants with strong professional experience, supporting the use of these participants as viable proxies for active audit committee members. Eighty-two percent of participants are employed with a majority (95.76%) indicating supervisory experience. Some participants also have Board experience (48.31%),[38] audit committee experience (33.05%), and audit experience (41.53%). Twenty-seven percent are CPAs,

[36] Parallel analysis is an additional technique to assist in determining the number of factors to retain. It was developed by Marley W. Watkins (2000) and is gaining popularity in the social science literature. Many journals in the psychology and education fields are requiring researchers to use, and report, the results of parallel analysis before they will consider the manuscript for publication (Pallant, 2010, p. 184).
[37] Principal component analysis with oblique rotation also supports a one factor optimal solution (factor loadings range from 0.659 to 0.941).
[38] Twenty-six percent are from public company Boards.

twenty-two percent have more than three years experience in finance, accounting and management, and some demonstrated knowledge on SOX (23.72%).

(see Table 4)

Table 5 provides the frequency distribution and chi-square analyses for the categorical variables by cell. The table shows participants were equally distributed among the four groups, ranging from 26 to 33 participants per cell condition. Ninety-two percent of the participants have a college degree and 84 percent had over ten years professional work experience. Sixty-seven percent indicate that they support a longer cooling-off period before auditors should accept a supervisory position with their former client and 41 percent support the PCAOB's monitoring process. Chi-square tests for independence indicate a significant difference across the cells for WXPYRS ( $\chi^2$ =7.870, $p$<.05). Further analysis shows that the difference in WXPYRS lies between cell 2 and cell 4. The percentage of cell totals across the groups reveal that participants in cell 4 are less educated, and have less CFO and audit committee experience than the participants in the other cells. To address whether these differences may be driving the results of the study, I compare the values in cell 4 against the values in cell 1, cell 2, and cell 3 for the variables EDUCATED, CFO and ACEXP. The chi-square tests, using Yates' Correction for Continuity, reveal no significant difference between groups for each cell comparison.[39]

(see Table 5)

Table 6 provides the mean, standard deviation, and median of the non-categorical variables in the sample. The overall mean (standard deviation) of the participants

[39] The Yates' Correction for Continuity (Continuity Correction) compensates for the overestimation of the chi-square value when a 2 x 2 table is used (Pallant, 2010, p. 216).

perception of audit quality (max score=63) was 38.59 (14.03), indicating moderate overall perception of audit quality. Likewise, the overall average likelihood across cells of the participant recommending the auditor is 3.92 with a standard deviation of 1.91 (max score=7). The average age of participants is 48.32 years. Participants are not very familiar with the PCAOB inspection process, displaying a mean (median) score of 5.56 (4.0) in a range of 2 to 14.

(see Table 6)

Table 7 reports the Pearson (Spearman) correlation coefficients above (below) the diagonal for all variables used in the analyses. There is a strong positive and significant correlation ($r = .810$, $p < .01$) between the dependent variables (SELECT and PERCEP). This associate suggests that the variables may be endogenous. I ran simultaneous linear equations and MANOVA using both dependent variables to address this issue. The treatment variable, INSPECTION, shows strong, positive, and significant ($r > .7$, $p<.01$) correlations with both dependent variables. The correlation between AFFILIATION and PERCEP is positive and significant ($r =.766$, $p < .01$); however, the correlation between AFFILIATION and SELECT is not significant. The variables, CPA and CERTIFY, report a strong, positive, and significant correlation with each other ($r = .699$, $p < .01$) which is expected; all other variables show small to moderate associations, some of which are statistically significant. An inspection of the variance inflation factors (VIFs) and tolerance values confirm that all values are within acceptable levels.[40]

(see Table 7)

[40] The VIF (tolerance) values range from 1.149 (.366) to 2.736 (.870). The literature suggests that VIFs greater than 10.0 and tolerance values less than 0.2 are problematic (Myers 1990, Menard 1995, Field, 2009).

**Perception-Hypotheses**

The results of testing hypotheses 1a, 2a, and 3a are discussed in this section. Table 8, Panel A provides the ANOVA results of testing the independent variables, INSPECTION and AFFILIATION, on participants' perception of audit quality (PERCEP). Preliminary checks were conducted to ensure that there were no violations of ANOVA assumptions. Levene's test of Equality of Error Variance is significant ($p<.01$) suggesting that the group variances are not equal. According to Stevens (1996, p. 249), ANOVA (and ANCOVA) is robust to this violation provided that the ratio of largest to smallest cases per group is under 1.5. The groups in this study meets the provision (33/26 = 1.27).

There are statistically significant main effects and large effect size for INSPECTION, $F\ (df\ 1) = 206.873\ p<.01$ (partial eta squared = 0.645), and for AFFILIATION $F\ (df\ 1) = 31.269\ p < .01$, (partial eta squared = 0.215).[41] The interaction effect between INSPECTION and AFFILIATION was not statistically significant. The results show that participants' perception of audit quality differs by inspection results and by whether there is an affiliation between management and the auditor. Results of the ANOVA support H1a and H2a at the 0.01 level. I find no evidence to support H3a.

The results of independent-samples t-tests, used to compare the difference in means between the groups for each independent variable, are presented in Table 8, Panel B. There is a significant difference in scores between participants in the favorable (M=48.59, SD=8.51) and unfavorable (M=27.15, SD=9.66) inspection results treatment conditions, $t\ (118) = 12.82,\ p<.01$, (partial eta squared = 0.545) supporting H1a.

[41] Cohen (1988, p. 22) gives the following effect size (partial eta squared) guidelines for group comparisons: Small = .01, Medium = .06, Large = .138.

Hypothesis 2a is also supported, *t (118) = 3.362, p<.01,* (partial eta squared = 0.089). There is a significant difference in scores for participants in the affiliation absent (M=42.55, SD=13.57) and affiliation present (M=34.21, SD=13.31) treatment conditions, *t (118) = 3.36, p=0.001,* (partial eta squared = 0.089).

In Table 8, Panel C (and illustrated in Figure 3), I present the comparison of cell means. The results support my predictions (see Figure 1 and Figure 2). Cell 1 mean is significantly higher than the means of Cell 2 (*t=11.457, p<.01*), Cell 3 (*t=5.207, p<.01*) and Cell 4 (*t=17.293, p<.01*). Additionally, the mean of Cell 2 is significantly higher than Cell 4 mean (*t=2.885, p<.01*). Cell 3 mean is significantly higher than the means of Cell 2 (*t=5.227, p<.01*), and Cell 4 (*t=8.636, p<.01*). The results suggest participants perceive auditors with favorable inspection results to provide higher audit quality than auditors with unfavorable inspection results. They have similar perceptions of auditors with no affiliation with management versus auditors with a prior manager affiliation. However, inspection results play a greater role in audit quality perception than whether the auditor is affiliated with management. A plot of the estimated marginal means of the independent variables on participants' audit quality perception is shown in Figure 3.[42]

(see Table 8)

(see fig. 3)

Table 9 presents the results of the ANCOVA model (equation 2). The model tests the effects of the independent variables on participants' perception of audit quality, after controlling for theoretically derived covariates which may moderate the effect. The main effects remain significant at p< .01 level, with large effect size. The interaction effect,

[42] Estimated marginal means provide the effect of the means of the manipulated variables on the dependent variable after adjusting for the effects of the covariates (if any) in the model.

INSPECTION *AFFILIATION, is significant at p < .025, and is marginally significant with the Bonferonni adjustment.[43] Covariates also help explain some of the variance. The coefficients on EXTAUDIT (*p < .01*), BDEXP ((*p<.025*), and SUPPORT (*p<.01*) are statistically significant in the directions predicted. GENDER is marginally significant (p<.025, two-tailed) and positive. The overall model explains 75.5 percent of the variance (adjusted R-square = 70.4%).

(see Table 9)

As participants' perception scores may have been chosen to support their selection decision, I repeat the above analyses on the initial and expanded PERCEP models (equations 1 and 2), controlling for SELECT. The results of the analyses (not tabulated) indicate that auditor selection contributes significantly to audit quality perception (*p < .01),* the main effects are significant at p < .01 level, and the interaction effect remains statistically non-significant. Also, in the ANCOVA model, the coefficient on BDEXP loses its statistical significance.

**Selection-Hypotheses**

This section discusses the results of testing hypotheses H1b, H2b, and H3b. Table 10, Panel A provides the ANCOVA results of testing the independent variables INSPECTION and AFFILIATION on the participants' likelihood of recommending the auditor (SELECT), while controlling for audit quality perception (PERCEP). The results report a marginally significant main effect (*p < .05*) for INSPECTION, providing support for H1b. The coefficient on AFFILIATION is not significant, so H2b is not supported. The main effects imply that audit committee members' selection decision is impacted by

[43] Bonferonni adjustment corrects for Type 1 error when multiple analyses are conducted on the same data (Pallant, 2010). A significance level of p < .025 is used to analyze the data.

inspection results, but not by a prior manager-auditor affiliation. There is a significant interaction effect ($p < .025$, partial eta-squared = 0.038) between the predictors, suggesting a moderating effect on audit committee members' selection decision, which supports H3b.

Table 10, Panel B reports the planned comparison of cell means, adjusted for audit quality perception. As predicted, the mean on favorable inspection results are significantly higher ($p<.01$) than unfavorable inspection results. However, the mean difference between participants in the affiliation-absent condition and the affiliation-present condition is significant and negative. This result may be due to participants' belief that a good working relationship between management and the auditor is desirable as it may promote productivity and efficiency, thus improving overall audit quality.

In Panel C, I present the results of individual cell comparisons. As expected, Cell 1 has the highest mean (M=4.30) which is significantly higher than the means of Cell 2 (M=3.24), Cell 3 (M=4.13) and Cell 4 (3.92) at $p < .01$ significance level. Surprisingly, the mean of Cell 2 has the lowest mean. It is significantly lower, $p<.01$, than the means of Cell 3 and Cell 4. These results suggest that participants appear to place greater value on the favorableness of inspection results, in recommending auditors, than on the nature of a prior manager-auditor affiliation. It also supports the prior statement that participants view the presence of a manager-auditor affiliation more favorably than the absence of an affiliation. Lastly, Cell 3 mean is significantly higher ($p<0.01$) than the mean of Cell 4 which resonates the preference for favorable versus unfavorable inspection results. A plot of the estimated marginal means of the independent variables on SELECT, adjusted for PERCEP, is presented in Figure 4.

(see Table 10)

(see fig. 4)

Table 11 presents the results of the ANCOVA model with other covariates that may influence participants' auditor recommendation decision. The main effect for INSPECTION is not significant. The coefficient on AFFILIATION is negative and significant ($p < .025$), consistent with previous results. The interaction effect, INSPECTION*AFFILIATION is marginally significant (*$p<.025$*), with a small effect size (partial eta squared = 0.03). The coefficient on PERCEP is significant ($p<.01$, partial eta squared = .353) and positive, indicating that audit quality perception is a significant determinant in auditor selection. The parameter coefficient on EMPLOY is positive and significant at the $p<.01$ level, suggesting that employment contributes to the overall model. The overall model explains 75.6 percent of the variance (adjusted R square = 70.2%).

(see Table 11)

**MANOVA Analysis**

A two-way between-groups multivariate analysis of variance was performed to investigate whether differences in inspection results and prior manager-auditor affiliation influence audit committee members' overall evaluation of auditors. The two dependent variables used to represent overall auditor evaluation are PERCEP and SELECT. The independent variables are INSPECTION and AFFILIATION.

The results of the multivariate tests are illustrated in Table 12, Panel A. Preliminary assumption testing revealed that the data violated the assumption of equality of variance-covariance (Box's Test is significant at $p < .01$). The effect of violating this option is not

clear in the literature, but according to Pallant (2010, p. 294), Pillai's Trace is more robust than Wilks' Lambda when data has problems (see comparison of MANOVA statistics in Tabachnick & Fidell, 2007, p. 252). There is a significant difference between favorable and unfavorable inspection results (*F (2, 113) = 107.50, p < .01;* Pillai's Trace = .66; partial eta squared =.655), and between the absence and presence of a prior manager-auditor affiliation (*F (2, 113) = 16.32, p < .01;* Pillai's Trace = .22; partial eta squared = 0.224) on the combined dependent variables. The interaction effect, INSPECTION*AFFILIATION, is not significant.

Table 12, Panel B, presents the ANOVA results when the dependent variables are considered separately. Using a Bonferonni adjustment alpha level of p<.025, inspection results and prior affiliation reached statistical significance on PERCEP and SELECT. The interaction effect is statistically significant on SELECT but not PERCEP. These results are consistent with prior ANOVA findings.

(see Table 12)

**Additional Analyses**

I conduct a number of additional analyses to address econometric issues that may be present in the data and for robustness. First, I use the factor scores obtained from the factor analysis of the nine scale items measuring audit quality perception to create an alternate measure for the dependent variable, PERCEP. I test the robustness of the audit quality perception measure by re-performing the main analyses on all the models that used PERCEP. The untabulated results indicate that both measures provide consistent results.

Next, I perform a binary logistic regression on a categorical version of the SELECT variable, *SELECT2GP* to test robustness of the SELECT model. SELECT2GP is a categorical variable equal to 1 (more likely to recommend) if the scores on SELECT is 5 or higher; 0 otherwise (less likely to recommend). Table 13 presents the results of this analysis. The full model containing all predictors were significant, $\chi^2$ (21, N=118) = 119.187, $p < .01$, indicating that the model was able to distinguish between respondents who did or did not recommend the auditor. The Hosmer and Lemeshow goodness of fit test is not significant, which also supports the model. The model as a whole explains between 63.6 and 84.9 percent of the variance in SELECT2GP, and correctly classified 94.1 percent of cases.

As shown in Table 13, perception of audit quality (PERCEP) and employment status (EMPLOY) make positive and unique significant contributions to the model ($p<.01$, $p<.05$, respectively). This is consistent with the results of the SELECT ANCOVA model (see Table 11). Employment status is also the strongest individual predictor in the auditor selection decision, reporting an odds-ratio of 63.99. This indicates that employed respondents are 64 times more likely to recommend the auditor than unemployed respondents; controlling for all other factors in the model. The coefficient on COOLOFF is negative and significant ($p < .05$); however, the odd-ratio is less than 5 percent.

(see Table 13)

Further, I conduct a multinomial logistic regression with SELECT. Recall that SELECT is the likelihood that the participant will recommend the auditor, measured on a 7-point Likert-type scale ranging from 1 = extremely unlikely to 7 = extremely likely.

The overall model is significant ($R^2$ = .707, Cox & Snell, $\chi^2$ (24) = 144.71, $p < .01$), and consistent with the binary logistic regression model. The results indicate that audit quality perception has an overall significant effect on auditor selection.

I check robustness of the PERCEP ANCOVA model by performing a multiple regression analysis with PERCEP using both measures of audit quality perception, the average composite score of the nine scale items and the factored component score. The results of both OLS regressions (not tabulated) fully support the ANCOVA model (see Table 9).

To determine whether the significant differences in group means are being driven by specific groups of participants, I conduct independent-samples T-tests on the following groups; gender (GENDER), AGE2GP (above and below 45 years old), board experience (BDEXP), audit committee experience (ACEXP), and knowledge of SOX (SOX) for both dependent variables. The untabulated results reveal no significant difference in the groups.

To further account for possible endogeneity in the research design, I estimate the following system of linear equations, simultaneously.

$$PERCEP_i = \beta_0 + \beta_1 SELECT_i + \beta_2 INSPECTION_i + \beta_3 AFFILIATION_i + \beta_{4\text{-}20} Covariates_i + \varepsilon_i \quad (5)$$

$$SELECT_i = \beta_0 + \beta_1 PERCEP_i + \beta_2 INSPECTION_i + \beta_3 AFFILIATION_i + \beta_{4\text{-}20} Covariates_i + \varepsilon_i \quad (6)$$

Where the variables in the equations are previously defined in equation (1) and equation (3). I include SELECT as a predictor in the perception model and PERCEP as a predictor in the selection model. The results (not tabulated) support the MANOVA

results. The coefficient on SELECT in the perception model (equation 5) is positive and significant ($p<.01$). The coefficient on PERCEP in the selection model (equation 6) is also positive and significant ($p<.01$). These results suggest that perception and selection are jointly determined.

## CHAPTER 6: CONCLUSION

In this chapter, I provide a summary of the findings, discuss the contribution and limitations of the research, and offer recommendations for future research.

### Summary

This study investigates audit committee effectiveness and the use of the PCAOB inspection results as an audit quality indicator. Using financially literate professionals over age 30, with more than three years experience in Finance, Accounting, or Management, as a proxy for audit committee members of small public companies, I examine whether participants use two specific types of audit quality indicators in evaluating auditors. In a setting where the manager recommends the auditor in all cases, I manipulate the results (favorable/unfavorable) of the auditor's most recent PCAOB-Like inspection report and a previous manager-auditor affiliation (absent/present) to examine whether the participant will use the manipulated audit quality indicators to evaluate the auditor. In the favorable results condition, the inspection team did not report any deficiencies. In the unfavorable results condition, the inspection team reported three audit engagement deficiencies, and multiple and severe quality control defects. Additionally, the auditor failed to remedy the deficiencies within 12 months of the issuance of the inspection report, so the auditor's quality control defects were made public. In the affiliation absent condition, the participants were told that no member of management had any previous personal or business relationship with the audit firm under

evaluation. In the affiliation present condition, the participants were told that the company's CFO and Director of Internal Audit were former audit partners of the audit firm and were recently hired by the client 13 months ago. Although the manager-auditor affiliation meets the regulatory 12 month cooling-off period requirement, some audit committee members may perceive 13-months to be a potential independence issue.

Overall, the results suggest that surrogates for audit committee members are diligent in their responsibilities as audit committee members, perception and selection decision are made jointly, and PCAOB inspection results are useful. With respect to audit quality perception, I find support for H1a, H2a and H3a. Additional tests reveal that the results hold after controlling for auditor selection; thus, auditor selection is a significant determinant of audit quality perception.

The auditor selection results are interesting. The results of the analyses support hypotheses H1b and H3b, but not H2b. After controlling for audit quality perception and other covariates, I find that the nature of a prior manager-auditor affiliation is inversely related to auditor selection. This suggests that audit committee members are more likely to select an auditor with a prior affiliation with management than one without an affiliation. Inspection results moderate the effect. Additionally, the difference in cell means, adjusted for audit quality perception, indicates that participants have a significant preference for auditors with favorable inspection results than unfavorable inspection results. Further investigation reveals that audit quality perception and auditor selection are jointly determined.

## Contribution and Limitations

The findings in this study provide evidence that audit committee members are diligent in performing their auditor engagement function, and that inspection results are useful in the auditor evaluation process. The results also provide evidence that the 12-month cooling off period before former auditors can accept a supervisory position with a client may not be perceived as an impairment of independence; instead an association between management and the auditor is desirable. These results suggest that some of SOX reforms are working. As such, the results of this study should be of interest to public companies, investors, regulators and public accounting firms.

This research is limited to audit committee members of small public companies. Therefore, the results may not be generalizable to audit committees of large accelerated filers. Close to sixty percent of the participants do not have audit committee experience so the results are contingent on participants' dedication to their role as audit committee members. The results are also vulnerable to research design issues inherent in experimental studies.

## Future Research

Future research in this area could investigate the importance of audit engagement deficiencies and quality control defects in PCAOB inspection reports to audit committee members. Using actual audit committee members of small public companies, audit committee effectiveness may be explored in an experimental setting using other quality indicators e.g. audit risks, fees, or industry specialization.

## APPENDIX A: EXPERIMENTAL INSTRUMENT

Hello, my name is Veena Looknanan-Brown from Florida Atlantic University. I am a Ph.D. student in the School of Accounting conducting academic research to fulfill part of the requirements of my doctoral program. My research examines clients' engagement of auditors.

Please click Informed Consent to read the informed consent for internet-based research and indicate whether you wish to participate in this experiment.[44] If you disagree with the consent, you will not be able to take the survey

- Disagree
- Agree

Welcome! Thank you for offering to participate in this survey. To ensure that you are qualified, we would like to ask a few general questions about your area of expertise.

S1. In which of the following areas do you have more than THREE years full-time (or equivalent) professional work experience? (Check ALL that apply)

- Sales
- Finance
- Accounting
- Management
- Human Resources
- Information Technology (IT)
- None of the above

S2. In which age category do you belong?

- Less than 30 years
- Between 30 and 45
- Between 46 and 65
- Over 65 years

If Less than 30 years Is Selected, Then Skip To End of Block

[44] Experiment was administered via Qualtrics.com.

S3. Which entity is charged with overseeing auditors of SEC (U.S. Securities and Exchange Commission) registrants?

- American Institute of Certified Public Accountants (AICPA)
- Government Accountability Office (GAO)
- Financial Accounting Standards Board (FASB)
- Public Company Accounting Oversight Board (PCAOB)
- Don't Know

S4. On which financial statement would "Inventory" most likely appear?

- Income Statement
- Balance Sheet
- Statement of Cash Flows
- Statement of Owner's Equity
- Don't know

If Balance Sheet Is Not Selected, Then Skip To End of Block

S5. What is the standard balance for Sales Revenue on a company's financial statement?

- A Zero Balance
- A Debit Balance
- A Credit Balance
- Sales Revenue does not have a standard balance
- Don't know

If A Credit Balance Is Not Selected, Then Skip To End of Block

S6. Which of the following is a requirement under the law to be appointed to the Audit Committee of a publicly-traded company?

- You must have accounting or auditing experience
- You must be an independent director
- You must be a financial expert
- There are no requirements other than being voted to the Board by shareholders

S7. Which section of the Sarbanes-Oxley Act (SOX) addresses the requirement that the auditor test and report on internal controls over financial reporting?

- Section 306
- Section 404
- Section 906
- This requirement was eliminated for all companies under the Dodd-Frank Act

## SECTION I

## GENERAL INSTRUCTIONS

The following pages contain information on an audit committee's evaluation of prospective audit firms. Please place yourself in the role of an experienced **audit committee member** on the Board of a small public company.[45] You will be asked to indicate your thoughts about a prospective audit firm charged with conducting the financial statement audit and audit of internal controls over financial reporting (ICFR) for the public company for which you serve as an audit committee member. The audit firm is registered with the *Regulatory Public Auditor Monitoring Board* (RPAMB).[46]

## YOUR ROLE

Please assume that you are a newly appointed member of a three-member audit committee of VNG Corporation (VNG), a publicly-traded company. The following is background information about VNG.

## BACKGROUND INFORMATION ABOUT VNG

### VNG Corporation

VNG is a growing small-cap ($150M) U.S. manufacturing public company whose shares are traded on the NASDAQ. Last year, the company reported revenues of $110 million. The CEO and most of upper level management have been with the company for more than ten years. The CFO and the Director of Internal Audit have been with VNG for thirteen months. Management has immediate plans to launch a new division and is considering bond issues to fund the project.

VNG has been audited for the past twenty years by the same regional CPA firm. Last year, VNG's predecessor auditor resigned because the firm restructured to focus on audits of private companies, the primary source of funds for the firm.

[45] An accelerated filer with market capitalization of $150M and revenues of $110M.

[46] RPAMB is a fictitious organization created in the image of the Public Company Accounting Oversight Board (PCAOB) with all its powers. It is necessary to create a fictitious organization as the PCAOB allows the use of its name and inspection reports for many uses but not on reports that have been altered in any way

**VNG's Audit Committee**

VNG's three member audit committee is relatively new to the Board. All members, including you, were appointed to the board within the last two years and are experienced, financially literate professionals from various business fields. Each member currently serves on a Board of at least one other public company. The chair of VNG's audit committee, a CPA, is the designated financial expert.

VNG's audit committee voted to issue a Request for Proposal (RFP) to a number of regional CPA firms to perform VNG's upcoming audit. It is now the task of the audit committee to evaluate the audit firms and to recommend an auditor to the rest of the Board and to Shareholders.

The Chair of the audit committee has asked all committee members to evaluate the prospective audit firms.

**THIS IS THE END OF THE CASE**

**AFTER THIS PAGE, YOU WILL NOT BE ABLE TO RETURN TO THE CASE**

[The links in TASK section below contained four treatment conditions in a 2x2 manipulation of the inspection report (favorable/unfavorable) and the affiliation between manager and auditor (absent/present). Each condition was presented randomly to participants who qualified to take the survey]

**YOUR TASK**

CPA FIRM A, LLP (Firm A) is the first firm being analyzed. The Chair has asked you, and the other committee member, to evaluate Firm A using only the limited information provided, and to indicate the likelihood you would recommend that Firm A be awarded VNG's audit contract.

***On the following page, you will find links to important information on Firm A to assist with your evaluation. It is critical to this study that you click on the links and view the attached documents before proceeding with the survey.***

(Note: The link will open in a new window. To return to the survey questions, please close the new window).

You have the following information to assist with your evaluation of Firm A:

**(YOU MUST CLICK THE LINKS AND VIEW THE DOCUMENTS TO PASS THE SURVEY QUALIFICATIONS! You will be asked questions in the survey that pertain to information provided only in these documents).**

1. General characteristics of Firm A; click on this **link GENERAL CHARACTERISTICS** to view Firm A's characteristics.

2. The most recent inspection report on Firm A, issued by RPAMB. The inspection report is publicly-available and was retrieved directly from the RPAMB's website; click on this **link RPAMB RESULTS** to view the inspection report.

3. VNG Management's evaluation of Firm A; click on this link **VNG Management EVAL** to view management's evaluation.

4. If you are unfamiliar with SOX requirements on (a) Inspection of Auditors, and (b) Audit Committee Responsibilities; click on this link **SOX REQUIREMENTS** for a brief overview.

**SECTION II**

The audit committee is meeting **in two days** to discuss your recommendation **regarding Firm A.**

**Based on your assumed role** as a newly appointed audit committee member of VNG and the limited information provided on Firm A, please answer the following questions:

1. What is the likelihood that you will recommend Firm A to conduct VNG's integrated audit? (Please select a number on the scale that best represents your response. The scale ranges from 1=Extremely Unlikely to 7=Extremely Likely).

| Extremely Unlikely 1 | 2 | 3 | Neither Likely nor Unlikely 4 | 5 | 6 | Extremely Likely 7 |
|---|---|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ | ○ | ○ |

2. It is quite likely that the other committee members will ask you to explain the reasoning behind your recommendation decision. What is the single most important factor in support of your decision?

- ○ No prior relationship between management and Firm A
- ○ Manager recommendation of Firm A
- ○ Unfavorable inspection report
- ○ Auditor independence
- ○ A prior working relationship between management and Firm A
- ○ Favorable inspection report
- ○ Auditor Reputation
- ○ Adequate resources
- ○ Reasonable Fees
- ○ Auditor Expertise
- ○ Other (please specify)

Answer If SELECT - Extremely Unlikely1 Is Selected Or SELECT - 2 Is Selected Or SELECT - 3 Is Selected Or SELECT - Neither Likely nor Unlikely 4 Is Selected

3. Would your recommendation decision change if you learn that Firm A's audit fees are 25% lower than the fees of the other prospective audit firms?

- o Yes
- o No

4. For each phrase below that completes the question "HOW CONFIDENT ARE YOU .....", please indicate **your level of confidence in Firm A** by selecting a number on the scale (the 7-point scale ranges from 1= Not Very Confident to 7 = Very Confident).

How confident are you .....?

| | Not Very Confident 1 | 2 | 3 | Neutral 4 | 5 | 6 | Very Confident 7 |
|---|---|---|---|---|---|---|---|
| in the quality control environment of Firm A? | | | | | | | |
| that Firm A is independent (that is, has the ability to appear objective, unbiased and likely to detect and disclose a financial reporting problem if one exists) in performing the audit? | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| that Firm A will conduct the audit so that VNG's financial statements will present fairly, in all material respects, the financial position of the Company? | | | | | | | |
| that Firm A will be independent from the influence of company's management? | | | | | | | |
| that Firm A will detect all material misstatements in the financial statements? | | | | | | | |
| that Firm A will report all material misstatements in the financial statements? | | | | | | | |
| that Firm A will identify all significant deficiencies in internal controls? | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| that Firm A will identify all internal control weaknesses that could lead to material misstatements in VNG's financial statement and related disclosures? | | | | | | | |
| that Firm A will conduct the audit so that VNG's financial statements are free of material effects of fraud? | | | | | | | |

**THIS IS THE END OF SECTION II**

## SECTION III

AT THIS POINT IN THE SURVEY, IT IS **EXTREMELY IMPORTANT** THAT YOU **CLOSE ALL EXTERNAL LINKS** YOU PREVIOUSLY OPENED IN THIS SURVEY.

Please answer the following questions with respect to **your assumed role as an audit committee member** of VNG Corporation.

5. What is the outcome of Firm A's RPAMB inspection results?
- Favorable
- Unfavorable
- Undecided

6. What is the nature of the prior association between the CFO of VNG and Firm A?
- The CFO does not have a prior association with Firm A
- The CFO is a former audit partner of Firm A
- Undecided

7. How many audit committee members (including the Chair) serve on VNG's Board of Directors?
- Don't Know
- Three
- Four

If Three Is Not Selected, Then Skip To End of Block

8. Does VNG management recommend that Firm A conduct the audit?
- Yes
- No
- Don't know

If Yes Is Not Selected, Then Skip To End of Block

The following questions relate to **YOUR Background** (not your role in this case). Recall that all responses are completely confidential.

Where a scale is provided, please indicate your response to the applicable question, by selecting a number on the 7-point scale that best represents your response.

9. Check a number on each line to indicate your years of professional experience (round to the nearest year)

| | None | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More than 10 years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Overall professional working experience | | | | | | | | | | | | |
| Overall Audit Committee experience | | | | | | | | | | | | |
| Overall Board experience in a publicly-traded U.S. Company | | | | | | | | | | | | |
| Overall Board experience in a private or non-profit entity | | | | | | | | | | | | |
| Supervisory position in Finance | | | | | | | | | | | | |
| Supervisory position in Accounting | | | | | | | | | | | | |
| Supervisory position in other areas | | | | | | | | | | | | |
| University/College Professor | | | | | | | | | | | | |
| Chief Financial Officer (CFO) | | | | | | | | | | | | |
| Chief Executive Officer (CEO) | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Partner in an audit firm | | | | | | | | | | | | |
| External Auditor (other than partner) | | | | | | | | | | | | |
| Internal auditor | | | | | | | | | | | | |
| Accountant in an industry | | | | | | | | | | | | |
| Financial Analyst | | | | | | | | | | | | |
| Financial Examiner | | | | | | | | | | | | |
| Commercial or private Banker | | | | | | | | | | | | |
| Investment banker | | | | | | | | | | | | |
| None of the above | | | | | | | | | | | | |

Answer If Experience (years) Overall Board experience in a publicly-traded U.S. Company - None Is Not Selected Or Experience (years) Overall Board experience in a private or non-profit entity - None Is Not Selected

10. What is the maximum number of Boards (of private or public entities) you have served on concurrently?

- None
- One
- Two
- Three
- Four
- More than Four

11. Indicate you familiarity with each item below (check a number on the 7-point scale which ranges from 1= Not at all Familiar to 7 = Extremely Familiar).

How familiar are you with .....?

| | Not at all Familiar 1 | 2 | 3 | Neither Familiar nor Unfamiliar 4 | 5 | 6 | Extremely Familiar 7 |
|---|---|---|---|---|---|---|---|
| the PCAOB (Public Company Accounting Oversight Board) | | | | | | | |
| the PCAOB inspection reports | | | | | | | |
| the AICPA (American Institute of Certified Public Accountants) peer review process | | | | | | | |

If PCAOB inspection reports? -... Is Selected, Then Skip To How likely are you to read a PCAOB re...

12. Please check the correct response to each question below.

| | Yes | No |
|---|---|---|
| Have you ever used the PCAOB Website to obtain auditor information? | | |
| Have you ever read a PCAOB Inspection Report? | | |

If read a PCAOB Inspection Rep... Is Selected, Then Skip To How likely are you to read a PCAOB re...

13. Please indicate to what extent you agree or disagree with each statement below (check a number on the 7-point scale where 1=Strongly Disagree to 7=Strongly Agree).

| | Strongly Disagree 1 | 2 | 3 | Neither Agree nor Disagree 4 | 5 | 6 | Strongly Agree 7 |
|---|---|---|---|---|---|---|---|
| the PCAOB inspection report is a reliable indicator of audit quality | | | | | | | |
| the PCAOB inspection staff are sufficiently experienced to conduct inspections | | | | | | | |

14. In your opinion, what is the importance of each of the following items in improving the PCAOB inspection report (check a number on the 7-point scale where 1=Extremely important to 7=Not at all important).

The PCAOB inspection report should .....

| | Extremely Important 1 | 2 | 3 | Neither Important nor Unimportant 4 | 5 | 6 | Not at all Important 7 |
|---|---|---|---|---|---|---|---|
| Provide a summary of findings | | | | | | | |
| Reduce boiler plate language | | | | | | | |
| Provide an opinion on the overall quality of the audit firm | | | | | | | |
| Disclose the firm's quality control defects | | | | | | | |
| Use a random sampling approach to select audit engagements for inspection | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Use a risk-based approach to select audit engagements for inspection | | | | | | | |
| Assess the seriousness of the issues identified | | | | | | | |
| Assess whether the issues identified are pervasive | | | | | | | |

15. What role(s) have you had in a PCAOB inspection? (Please check **all** that apply)

- ○ Company Manager
- ○ Internal Auditor
- ○ Audit Committee Member
- ○ Board Member
- ○ External Auditor
- ○ Other
- ○ I have never been involved in a PCAOB inspection

If I have never been involved ... Is Selected, Then Skip To How likely are you to read a PCAOB report in the future...

16. What were the results of the inspection(s) [Check **all** that apply]?

- ○ Favorable (no issues reported)
- ○ Audit Deficiencies only
- ○ Quality Control Defects/Criticisms only
- ○ Both Audit Deficiencies and Quality Control Defects
- ○ Don't know

17. How likely are you to read a PCAOB report in the future? (Please check a number on the scale which ranges from 1=Extremely Unlikely to 7=Extremely Likely)

| Extremely Unlikely 1 | 2 | 3 | Neither Likely nor Unlikely 4 | 5 | 6 | Extremely Likely 7 |
|---|---|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ | ○ | ○ |

18. Of which auditor monitoring process are you **most** supportive?

- ○ The AICPA Peer Review Process
- ○ The PCAOB Inspection Process
- ○ The Firm's Internal Review
- ○ None of the above
- ○ Other ☐

19. In your opinion, what is the optimal length of time auditors who were former members of a client's engagement team should wait to accept a supervisory accounting position or an oversight position with the client?

- ○ Zero-they should accept anytime
- ○ At least 1 year(12 months)
- ○ At least 2 years
- ○ 3 years or more
- ○ Auditors should never accept a supervisory accounting or an oversight position with a client

20. What is your overall Audit Committee experience in years? (round to the nearest year)

| | None | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | More than 10 years |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| At a private company (not an SEC registrant) | | | | | | | | | | | | |
| At a not-for-profit entity | | | | | | | | | | | | |
| At a publicly-traded company: Non-Accelerated Filer (< $75 M) | | | | | | | | | | | | |
| At a publicly-traded company: Accelerated Filer (≥ $75M but <$700M) | | | | | | | | | | | | |
| At a publicly-traded company: Large-Accelerated Filer (≥ $700M) | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| As an audit committee member | | | | | | | | | | | | |
| As the Chair on an Audit Committee | | | | | | | | | | | | |
| As a designated Financial Expert on an Audit Committee | | | | | | | | | | | | |
| I have no audit committee experience | | | | | | | | | | | | |

If I have no audit committee ex... Is Selected, Then Skip To End of Block

21. In answering the next few questions, think of the *largest public company* for which you *currently serve, or most recently served*, as an audit committee member (ACM)

22. Approximately what percent of your compensation as an audit committee member is based on stock options?

- ○ 0%
- ○ less than 10%
- ○ Between 10% and 25%
- ○ Between 26% and 50%
- ○ More than 50%
- ○ Cash compensation only
- ○ Do not receive any compensation
- ○ Other compensation (please specify) _____

23. Please check the correct number in to the following questions.

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | More than 7 |
|---|---|---|---|---|---|---|---|---|---|
| How many members are on the audit committee? | | | | | | | | | |
| How many members are financial experts? | | | | | | | | | |
| How many times per year does the audit committee meet? | | | | | | | | | |
| How many of the meetings are in person? | | | | | | | | | |
| How often (times per year) does the audit committee meet with the external auditor in the | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| absence of management? | | | | | | | | | |
| How many members are on the full Board? | | | | | | | | | |

24. Please rank the influence (1=most influence, 4=least influence) each of the following has on the selection of the external auditor? (Click and drag the item in the order of your ranking).

_____ Internal Auditor
_____ Management
_____ Audit Committee
_____ PCAOB Inspection Report

25. Whom do you rely on the **most** for assistance in clarifying financial statement issues?

- ○ The External Auditor
- ○ Management
- ○ The Internal Auditor
- ○ Other (please specify) [ ]

26. How would you rate the strength of the company's Internal Audit function? (Select a number on the 7-point scale where 1=Extremely Weak to 7=Extremely Strong).

| Extremely Weak 1 | 2 | 3 | Neither Weak nor Strong 4 | 5 | 6 | Extremely Strong 7 |
|---|---|---|---|---|---|---|
| ○ | ○ | ○ | ○ | ○ | ○ | ○ |

27. Check a response that best answers the following questions.

| | Yes | No | Don't Know |
|---|---|---|---|
| Was the audit committee Chair ever selected for an interview by the PCAOB in connection with an inspection? | | | |
| Do you, or any other Board member, inspect the auditor's internal control procedures, including any material issues raised by professional authorities? | | | |
| Is the CEO or CFO of the company on which you serve as an ACM, a current or recent board member in the company in which you are employed? | | | |
| Are you a personal friend of the CEO or CFO of the company on which you serve as an audit committee member? | | | |
| Does the company have a written Code of Ethics specific to Directors? | | | |

28. What position does the CEO of the company have on the Board?

- ○ None, the CEO is not on the Board
- ○ A member of the full Board
- ○ The Chairperson
- ○ A nominating committee member
- ○ A compensation committee member
- ○ The selection committee
- ○ Other (please specify) _____

29. Think of the last time you were involved in a conflict between management and the auditor; with whom did you side?

- ○ The manager
- ○ The auditor
- ○ Neither
- ○ No conflict

30. Which of the following exists in the company? (Check **all** that apply)

- ○ Institutional Investors
- ○ Investor Groups
- ○ Other (please specify) _____
- ○ Don't know

**Please answer the following demographic questions about you personally (not your role in the case). Recall, all responses are anonymous.**

31. What is your age (in years)?

- ○ Actual Age _____
- ○ prefer not to disclose

32. What is your Gender?

- ○ Male
- ○ Female

33. What is your current employment status?
- Employed
- Unemployed
- Retired

34. What is your highest level of education achieved?
- Doctorate
- Masters
- Bachelor
- Associate
- None of the above

35. What is your professional designation? (Check **ALL** that apply)
- Certified Public Accountant (CPA)
- Certified Management Accountant (CMA)
- Certified Fraud Examiner (CFE)
- Other (please specify) ☐
- Not Applicable

36. In which state, country, or continent have you lived the longest?

37. With which state, country, or continent do you most identify (i.e. think of as home)?

- Africa
- Asia
- Australia
- Canada
- Caribbean Islands
- Europe
- South America
- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming

**In addition to the case material, the following documents were provided to the participants via hyperlinks within the instrument:**

**1. General Characteristics of Firm A**

- Firm A is regional and provides auditing, tax, and advisory services to private and public clients.
- Firm A has three offices in the region. Firm A has approximately 30 partners and 150 professional staff members.
- The audit partners in Firm A average 20 years of experience in auditing SEC clients.
- Firm A registered with the RPAMB in December 2006 to conduct audits of public clients, and had its first RPAMB inspection in relation to its audits of public companies in 2009. RPAMB released Firm A's inspection report in January 2010.
- Firm A is also a member in good standing of the American Institute of Certified Public Accountants (AICPA).

**2. Results of Firm A's inspection report from RPAMB most recent inspection.**
[This is the ***favorable*** results condition presented to participants]

The following inspection results pertaining to the review of Firm A's audit engagements and quality control system are provided verbatim from the firm's most recent inspection report issued on January 15, 2010 by the Regulatory Public Auditor Monitoring Board (RPAMB).[47] The report was obtained from the RPAMB's website.

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## PART I

## INSPECTION PROCEDURES AND CERTAIN OBSERVATIONS

Members of the Board's inspection staff ("the inspection team") conducted fieldwork for the inspection from June 8, 2009 to June 12, 2009. These procedures were tailored to the nature of the Firm, certain aspects of which the inspection team understood at the outset of the inspection to be as follows:

| | |
|---|---|
| Number of offices: | 3 (Headquartered in Anycities, States) |
| Ownership structure: | Professional corporation |
| Number of partners: | 30 |
| Number of professional staff:[48] | 150 |
| Number of issuer audit clients:[49] | 35 |

Board inspections are designed to identify and address weaknesses and deficiencies related to how a firm conducts audits.[50] To achieve that goal, Board inspections include reviews of certain aspects of selected audits performed by the firm and reviews of other matters related to the firm's quality control system.

In the course of reviewing aspects of selected audits, an inspection may identify ways in which a particular audit is deficient, including failures by the firm to identify, or to address appropriately, respects in which an issuer's financial statements do not present fairly the financial position, results of operations, or cash flows of the issuer in

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[47] Release No. 10X-2010-0X6

[48] "Professional staff" includes all personnel of the Firm, except partners or shareholders and administrative support personnel. The number of partners and professional staff is provided here as an indication of the size of the Firm, and does not necessarily represent the number of the Firm's professionals who participate in audits of issuers or are "associated persons" (as defined in the Act) of the Firm.

[49] The number of issuer audit clients shown here is based on the Firm's self reporting and the inspection team's review of certain information for inspection planning purposes. It does not reflect any Board determination concerning which, or how many, of the Firm's audit clients are "issuers" as defined in the Act. In some circumstances, a Board inspection may include a review of a firm's audit of financial statements of an issuer that ceased to be an audit client before the inspection, and any such former clients are not included in the number shown here.

[50] This focus necessarily carries through to reports on inspections and, accordingly, Board inspection reports are not intended to serve as balanced report cards or overall rating tools.

conformity with GAAP.[51] It is not the purpose of an inspection, however, to review all of a firm's audits or to identify every respect in which a reviewed audit is deficient. Accordingly, a Board inspection report should not be understood to provide any assurance that the firm's audits, or its issuer clients' financial statements, are free of any deficiencies not specifically described in an inspection report.

**A. Review of Audit Engagements**

The inspection procedures included a review of aspects of the Firm's auditing of financial statements of five issuers. The scope of this review was determined according to the Board's criteria, and the Firm was not allowed an opportunity to limit or influence the scope. This review did not identify any audit performance issues that, in the inspection team's view, resulted in the Firm failing to obtain sufficient competent evidential matter to support its opinion on the issuer's financial statements.

**B. Review of Quality Control System**

In addition to evaluating the quality of the audit work performed on a specific audit, the inspection included review of certain of the Firm's practices, policies, and procedures related to audit quality. This review addressed practices, policies, and procedures concerning audit performance, training, compliance with independence standards, client acceptance and retention, and the establishment of policies and procedures. The inspection team did not identify anything that it considered to be a quality control defect that warrants discussion in a Board inspection report.

[51] When it comes to the Board's attention that an issuer's financial statements appear not to present fairly, in a material respect, the financial position, results of operations, or cash flows of the issuer in conformity with GAAP, the Board's practice is to report that information to the SEC, which has jurisdiction to determine proper accounting in issuers' financial statements.

**2. Results of Firm A's inspection report from RPAMB most recent inspection.**
[This is the ***unfavorable*** results condition presented to participants]

The following inspection results pertaining to the review of Firm A's audit engagements and quality control system are provided verbatim from the firm's most recent inspection report issued on January 15, 2010 by the Regulatory Public Auditor Monitoring Board (RPAMB).[52] The report was obtained from the RPAMB's website.

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## PART I

## INSPECTION PROCEDURES AND CERTAIN OBSERVATIONS

Members of the Board's inspection staff ("the inspection team") conducted fieldwork for the inspection from June 8, 2009 to June 12, 2009. These procedures were tailored to the nature of the Firm, certain aspects of which the inspection team understood at the outset of the inspection to be as follows:

| | |
|---|---|
| Number of offices: | 3 (Headquartered in Anycities, States) |
| Ownership structure: | Professional corporation |
| Number of partners: | 30 |
| Number of professional staff:[53] | 150 |
| Number of issuer audit clients:[54] | 35 |

Board inspections are designed to identify and address weaknesses and deficiencies related to how a firm conducts audits.[55] To achieve that goal, Board inspections include reviews of certain aspects of selected audits performed by the firm and reviews of other matters related to the firm's quality control system.

In the course of reviewing aspects of selected audits, an inspection may identify ways in which a particular audit is deficient, including failures by the firm to identify, or to address appropriately, respects in which an issuer's financial statements do not present fairly the financial position, results of operations, or cash flows of the issuer in

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[52] Release No. 10X-2010-0X6A
[53] "Professional staff" includes all personnel of the Firm, except partners or shareholders and administrative support personnel. The number of partners and professional staff is provided here as an indication of the size of the Firm, and does not necessarily represent the number of the Firm's professionals who participate in audits of issuers or are "associated persons" (as defined in the Act) of the Firm.
[54] The number of issuer audit clients shown here is based on the Firm's self reporting and the inspection team's review of certain information for inspection planning purposes. It does not reflect any Board determination concerning which, or how many, of the Firm's audit clients are "issuers" as defined in the Act. In some circumstances, a Board inspection may include a review of a firm's audit of financial statements of an issuer that ceased to be an audit client before the inspection, and any such former clients are not included in the number shown here.
[55] This focus necessarily carries through to reports on inspections and, accordingly, Board inspection reports are not intended to serve as balanced report cards or overall rating tools.

conformity with GAAP.[56] It is not the purpose of an inspection, however, to review all of a firm's audits or to identify every respect in which a reviewed audit is deficient. Accordingly, a Board inspection report should not be understood to provide any assurance that the firm's audits, or its issuer clients' financial statements, are free of any deficiencies not specifically described in an inspection report.

### A. Review of Audit Engagements

The inspection procedures included a review of aspects of the Firm's auditing of financial statements of five issuers. The scope of this review was determined according to the Board's criteria, and the Firm was not allowed an opportunity to limit or influence the scope.

The inspection team identified what it considered to be audit deficiencies.[57] The deficiencies identified in three of the audits reviewed included deficiencies of such significance that it appeared to the inspection team that the Firm did not obtain sufficient competent evidential matter to support its opinion on the issuer's financial statements.[58] Those deficiencies were –

1) the failure, in three audits, to perform sufficient procedures to test revenue;

2) the failure, in two audits, to perform sufficient procedures with respect to related party relationships and transactions;

3) the failure, in one audit, to perform sufficient procedures to test the existence of certain loans receivable.

One of the deficiencies described above related to auditing an aspect of an issuer's financial statements that the issuer revised in a restatement subsequent to the primary inspection procedures.[59]

### B. Review of Quality Control System

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[56] When it comes to the Board's attention that an issuer's financial statements appear not to present fairly, in a material respect, the financial position, results of operations, or cash flows of the issuer in conformity with GAAP, the Board's practice is to report that information to the SEC, which has jurisdiction to determine proper accounting in issuers' financial statements.

[57] RPAMB standards require a firm to take appropriate actions to assess the importance of audit deficiencies identified after the date of the audit report to the firm's present ability to support its previously expressed opinions. See AU 390, *Consideration of Omitted Procedures After the Report Date,* and AU 561, *Subsequent Discovery of Facts Existing at the Date of the Auditor's Report* (both included among the PCAOB's interim auditing standards, pursuant to RPAMB Rule 3200T). Failure to comply with these RPAMB standards could be a basis for Board disciplinary sanctions.

[58] In some cases, an inspection team's observation that a firm failed to perform a procedure may be based on the absence of documentation and the absence of persuasive other evidence, even if a firm claims to have performed the procedure. RPAMB Auditing Standard No. 3, *Audit Documentation* ("AS No. 3"), provides that, in various circumstances including RPAMB inspections, a firm that has not adequately documented that it performed a procedure, obtained evidence, or reached an appropriate conclusion must demonstrate with persuasive other evidence that it did so, and that oral assertions and explanations alone do not constitute persuasive other evidence. See AS No. 3, paragraph 9; Appendix A to AS No. 3, paragraph A28. For purposes of the inspection, an observation that the Firm did not perform a procedure, obtain evidence, or reach an appropriate conclusion may be based on the absence of such documentation and the absence of persuasive other evidence.

[59] The Board inspection process did not include review of any additional audit work related to the restatements.

In addition to evaluating the quality of the audit work performed on specific audits, the inspection included review of certain of the Firm's practices, policies, and procedures related to Audit quality. This review addressed practices, policies, and procedures concerning audit performance, training, compliance with independence standards, client acceptance and retention, and the establishment of policies and procedures. As described above, any defects in, or criticisms of, the Firm's quality control system are discussed in the nonpublic portion of this report and will remain nonpublic unless the Firm fails to address them to the Board's satisfaction within 12 months of the date of this report.

## PART II

### A. Issues Related to Quality Controls

The inspection of the Firm included consideration of aspects of the Firm's system of quality control. Assessment of a firm's quality control system rests both on a review of a firm's stated quality control policies and procedures and on inferences that can be drawn from respects in which a firm's system has failed to assure quality in the actual performance of engagements.[60] On the basis of the information reported by the inspection team, the Board has the following concerns about aspects of the Firm's system of quality control (Quality Control Defects).

#### 1. Audit Performance

A firm's system of quality control should provide reasonable assurance that the work performed on an audit engagement will meet applicable professional standards and regulatory requirements. On the basis of the information reported by the inspection team, including the audit performance deficiencies described in Part II.A and any other deficiencies identified below, the Board has concerns that the Firm's system of quality control fails to provide such reasonable assurance in at least the following respects –

a. Technical Competence, Due Care, and Professional Skepticism

The Firm's system of quality control appears not to do enough to ensure technical competence and the exercise of due care or professional skepticism. In addition to the deficiencies noted in Part II.A, the inspection team reported that the Firm failed to perform and document required audit procedures to address the risk of material misstatement due to fraud. [Issuers A, B, C] Further, the inspection team noted that the Firm failed to perform and document appropriate audit procedures to evaluate the ability of two issuers to continue as going concerns. [Issuers C and D]

b. Monitoring and Addressing Identified Weaknesses

[60] A firm's failure to comply with the requirements of RPAMB standards when performing an audit may be an indication of a potentially significant defect in a firm's quality control system even if that failure did not result in an insufficiently supported audit opinion.

A firm should monitor the adequacy of its policies and procedures and meaningfully address identified weaknesses in its audit practice. The Firm's policies and procedures appear to be deficient in this regard. The nature and frequency of the problems reported by the inspection team suggest the Firm has not responded meaningfully to related weaknesses that were identified to the Firm in previous peer review reports. Recurring comments in these reports related to inadequate partner and concurring partner review, improper completion of audit programs and checklists, missing or incomplete documentation of audit procedures and financial statement disclosures, and failure to perform required communications concerning controls.

c. Partner Workload

The Firm's system of quality control may not provide sufficient assurance that the audit partner's workload requirements realistically allow for sufficient time to supervise staff and review work papers with due care. Only five of the Firm's audit engagement partners are responsible for servicing all of the Firm's issuer audit clients, and approximately half of the Firm's issuer audit clients report their financial results on a calendar year-end basis.

d. Appropriate Procedures

The Firm's system of quality control appears not to provide reasonable assurance that the Firm will conduct all testing appropriate to a particular audit. The information reported by the inspection team suggests an apparent pattern of failures to perform the appropriate procedures related to the testing of revenue [Issuers A, B, and C] and equity transactions. [Issuers B and C]

e. Concurring Partner Review

Questions exist about the effectiveness of the Firm's existing arrangement for concurring partner reviews. Having procedures for concurring partner review by a competent reviewer is an important element of quality control. Such reviews should involve the performance of appropriate procedures using due care and professional skepticism, with the Firm appropriately addressing the reviewer's findings and documenting the process. The Firm used the services of an accountant not affiliated with the Firm to perform the concurring partner review of all issuer audits included in the inspection. The information reported by the inspection team suggests that there is no evidence that the concurring partner review procedure used by the Firm resulted in the identification of any of the deficiencies noted by the inspection team. Apparent deficiencies in documentation of the scope and results of the concurring partner's reviews make it difficult to identify the principal cause of the problem, but potential causes include a lack of competency, due care or professional skepticism on the part of the concurring partner; deficiencies in the scope of the concurring partner's procedures; and/or the Firm's failure to properly address the concurring partner's findings.

### 3. MANAGEMENT'S EVALUATION OF FIRM A

Management strongly recommends **Firm A** conduct VNG's financial statement audit and the audit of internal controls over financial reporting (ICFR) for the following reasons:

1. VNG's management is very familiar with Firm A's work, as two members of management, the CFO and the Director of Internal Audit, were former audit partners of Firm A for five years prior to joining VNG 13 months ago.[61]

2. Firm A has a well-established reputation for providing audit services in VNG's manufacturing industry.

3. Firm A's fees to conduct VNG's audit are reasonable and comparable to the other firms that submitted a bid for VNG's audit.

4. Firm A appears to have adequate resources and expertise to complete the audit efficiently and effectively.

5. Firm A appears to keep abreast of the profession's statutory regulations and standards applicable to VNG's industry.

[61] SOX (2002) and SEC rules mandate a one-year (12 months) cooling-off period before auditors who were former members of the client's engagement team can accept a supervisory accounting position or an oversight position with the client.

## 4. A Note on Inspections and on Audit Committee Responsibilities

### *a. Inspection of Auditors*

The Sarbanes-Oxley Act establishes the Public Company Accounting Oversight Board (PCAOB) to oversee the audits of public companies. The PCAOB has regulatory authority to register, inspect and discipline public company auditors. U.S. auditors are inspected annually if they have more than 100 issuers (publicly-traded companies), and triennially if they have 100 or fewer issuers. The inspections include an evaluation of the quality of audit work performed and a review of some aspects of the auditor's quality control system. Audit engagements are selected based upon the board's criteria. As part of the review process, the PCAOB may interview audit committee members and review communications between the auditor and the audit committee. The results of the PCAOB's inspections are publicly disclosed on its website. Defects in the auditors' quality control system are not initially disclosed; however, if the auditor fails to substantially remedy the defects within 12 months, the defects are made public.

### *b. Audit Committee Responsibilities*

The Sarbanes-Oxley Act provides that the audit committee be directly responsible for the appointment, compensation, and oversight of the work of any registered public accounting firm. Also, the accounting firm must report directly to the audit committee. All audit committee members must be independent of the issuer,[62] and at least one member must be a financial expert. The audit committee is charged with providing critical oversight of the issuer's financial statement and ICFR, ensuring its transparency and integrity on behalf of investors. Audit committees, as monitors of the company's financial reporting quality, have the authority (and are highly encouraged by the PCAOB) to request and/or discuss the full inspection report with the auditor.

[62] "Independent" is defined as not receiving, other than for service on the board, any consulting, advisory, or other compensatory fee from the issuer, and as not being an affiliated person of the issuer, or any subsidiary thereof.

## APPENDIX B: INSTITUTIONAL RESEARCH BOARD APPROVAL

### INFORMED CONSENT FOR INTERNET-BASED RESEARCH

1. **Title of Research Study**: Are the Regulatory Reforms Working? Evidence from Audit Committee Members' Assessment of Auditors.

2. **Investigators**: Dr. Julia Higgs and Veena Looknanan-Brown.

3. **Purpose**: The purpose of this study is to assess factors important in the hiring of auditors.

4. **Procedures**: To participate in this study, you will complete an online experimental instrument accessed through a link provided by email. The task is estimated to take approximately 20 minutes. Section I contains general instructions and the case material; Section II lists questions specific to the case, and Section III is comprised of questions to assess your understanding of the task and to obtain demographic information of participants.

5. **Risks**: The risks involved with participation in this study are no more than one would experience in regular daily activities. There is some risk that the confidentiality of your data could be compromised, however that risk is minor and measures have been put in place to minimize that risk.

6. **Benefits**: There are possible direct benefits to you from participating in this study. Participants who successfully complete the survey may receive a financial reward. Indirectly, your participation will aid in the understanding of the audit engagement process.

7. **Data Collection & Storage**: All data will be submitted to, and stored by a secure website. We will make every attempt to maintain your confidentiality. No guarantees can be made regarding the interception of data sent electronically. The collected data will be downloaded by the researchers and stored in the researchers' password-protected computers.

8. **Contact Information**: For questions regarding your rights as a research subject, please contact the Florida Atlantic University Division of Research at (561) 297-0777. Questions about the study should be directed to Veena Looknanan-Brown at vlooknan@fau.edu, or Dr. Julia Higgs at jhiggs@fau.edu (561-297-3663).

9. ***Consent Statement:*** I have read the preceding information describing this study. I am 18 years of age or older and freely consent to participate. I understand that I am free to withdraw from the study at any time. I am aware that I will not be eligible to receive a reward for participating in this survey if any of the following conditions are met: I withdraw from the survey, I do not answer all of the questions in the survey, or I am not a qualified participant. By clicking the appropriate button below, I am giving my consent to participate in this study.

FAU Institutional Review Board

| | |
|---|---|
| Approved on: | 4/11/2011 |
| Expires on: | N/A |

## APPENDIX C: TABLES

Table 1

*Variable Descriptions*

| VARIABLES | DEFINITION |
|---|---|
| *Dependent Variables:* | |
| PERCEP | Is a composite score of 9 scale items; it measures the participant's perception of overall audit quality (max score =63). |
| SELECT | Is a measure of the likelihood that the participants will recommend CPA Firm A to conduct the company's audit (max score = 7). |
| SELECT2GP | Indicator variable equal to 1 if score on the "likelihood of recommending" scale is 5 or above, 0 otherwise. |
| *Independent Variables:* | |
| INSPECTION | Indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise. |
| AFFILIATION | Indicator variable equal to 1 if there is no prior affiliation between management and auditor, 0 otherwise. |
| *Control Variables (Covariates):* | |
| AGE | Is the participant's actual age (in years). |
| GENDER | Indicator variable equal to 1 if the participant is male, 0 otherwise. |
| DEGREE | Indicator variable equal to 1 if the participant has an Associate's degree or higher, 0 otherwise. |
| EDUCATED | Indicator variable equal to 1 if the participant has a Master's degree or higher, 0 otherwise. |
| EMPLOY | Indicator variable equal to 1 if the participant is employed, 0 otherwise. |
| WXPYRS | Indicator variable equal to 1 if the participant has more than 10 years professional work experience, 0 otherwise. |
| FAMEXP | Indicator variable equal to 1 if the participant has more than 3 years professional work experience in Finance, Accounting, and Management, 0 otherwise. |
| EXTAUDIT | Indicator variable equal to 1 if the participant has at least 1 year experience as an external auditor, 0 otherwise. |
| CFO | Indicator variable equal to 1 if the participant has at least 1 year experience as a CFO, 0 otherwise. |
| BDEXP | Indicator variable equal to 1 if the participant has at least 1 year Board experience, 0 otherwise. |
| ACEXP | Indicator variable equal to 1 if the participant has at least 1 year Audit Committee experience, 0 otherwise. |
| CPA | Indicator variable equal to 1 if the participant is a CPA and 0 otherwise. |
| CERTIFY | Indicator variable equal to 1 if the participant has a professional designation, 0 otherwise. |
| SOX | Indicator variable equal to 1 if participant is familiar with SOX, 0 otherwise. |
| PCAOBFAM | Is a composite score of the participant's level of familiarity with the PCAOB and the PCAOB inspection report each measured on a 7-point Likert-type scale (max=14). |
| SUPPORT | Indicator variable equal to 1 if the participant supports the PCAOB over another monitoring oversight process, 0 otherwise. |
| COOLOFF | Indicator variable equal to 1 if participant supports more than 12 months cooling-off period before former auditor could accept a position with a client, 0 otherwise. |

Table 2

*Sample Selection Summary*

| | Observations |
|---|---|
| Total number entering survey | 5,419 |
| Number not consenting to take survey | (785) |
| Number screening out[a] | (3,894) |
| Total number of qualified participants | 740 |
| Less participants who: | |
| Missed manipulation check questions | (571) |
| Dropped out | (25) |
| Provided inconsistent responses | (14) |
| Sped through survey[b] | (12) |
| Total number of cases analyzed | 118 |

Notes:
[a] Respondents were screened out for not having more than three years work experience in Finance, Accounting or Management (1,056), for being under age 30 (52), and for failing to correctly answer both of these financial statement questions (2,786): 1) on which financial statement would inventory appear?, 2) what is the standard balance for Sales Revenues?
[b] Qualified respondents who passed all check questions but completed the instrument in 9 minutes of less.

Table 3

*Factor Loadings on Perception of Audit Quality Scale*

| Item Number | Item Description[a,b] | Factor Loading |
|---|---|---|
| 1 | How confident are you in the quality control environment of Firm A? | 0.831 |
| 2 | How confident are you that Firm A is independent (that is, has the ability to appear objective, unbiased and likely to detect and disclose a financial reporting problem if one exists) in performing the audit? | 0.627 |
| 3 | How confident are you that Firm A will conduct the audit so that VNG's financial statements will present fairly, in all material respects, the financial position of the Company? | 0.900 |
| 4 | How confident are you that Firm A will be independent from the influence of company's management? | 0.606 |
| 5 | How confident are you that Firm A will detect all material misstatements in the financial statements? | 0.910 |
| 6 | How confident are you that Firm A will report all material misstatements in the financial statements? | 0.931 |
| 7 | How confident are you that Firm A will identify all significant deficiencies in internal controls? | 0.944 |
| 8 | How confident are you that Firm A will identify all internal control weaknesses that could lead to material misstatements in VNG's financial statement and related disclosures? | 0.927 |
| 9 | How confident are you that Firm A will conduct the audit so that VNG's financial statements are free of material effects of fraud? | 0.861 |

Notes:
Variable definitions are presented in Table 1
[a] Items were measured on a 7-point Likert scale with 1=not very confident and 7=very confident
[b] Cronbach's alpha = 0.954

Table 4

*Relevant Information on Participants*

Panel A: Demographics (N=118)

| | | Number | Percent |
|---|---|---|---|
| AGE: | 30 – 45 years | 58 | 49.15% |
| | 46 – 65 years | 51 | 43.22% |
| | Over 65 years | 9 | 7.63% |
| GENDER: | Male | 65 | 55.08% |
| | Female | 53 | 44.81% |
| EDUCATED: | Participants with a graduate degree | 37 | 31.35% |

Panel B: Background Information (N=118)

| | Number | Percent |
|---|---|---|
| Employed (EMPLOY) | 97 | 82.20% |
| Audit Committee Experience (ACEXP) | 39 | 33.05% |
| Board Experience (BDEXP)[a] | 57 | 48.31% |
| Audit Experience[b] | 49 | 41.53% |
| Supervisory Experience[c] | 113 | 95.76% |
| Finance, Accounting, Management Experience[d] (FAMEXP) | 26 | 22.03% |
| SOX Knowledge[e] (SOX) | 28 | 23.72% |
| CPA (CPA) | 32 | 27.11% |

Notes:
[a] 15 of 57 respondents (26%) has public board experience.
[b] Participants with more than 1 year experience as an external auditor, internal auditor or partner.
[c] Participants with more than 1 year experience in a supervisory position in Finance, Accounting or other areas.
[d] Participants with more than 3 years experience in finance, accounting and management.
[e] Include participants who answered two of three SOX-related screening questions
Variable Descriptions are provided in Table 1.

Table 5

*Frequency Distribution of Categorical Covariates by Cell*

Number of Participants: N=118

| Variables[a] N (%) | C1 AAFV[b] 33(28%) | C2 AAUF[c] 29(24%) | C3 APFV[d] 30(25%) | C4 APUF[e] 26(22%) | Total 118 | Percent | Chi-Square Statistic[f] |
|---|---|---|---|---|---|---|---|
| GENDER: Male | 18 (55%) | 19 (65%) | 15 (50%) | 13 (50%) | 65 | 55.08% | 1.865 |
| DEGREE | 29 (88%) | 29 (100%) | 28 (93%) | 22 (85%) | 108 | 91.52% | 4.978 |
| EDUCATED | 9 (27%) | 13 (45%) | 10 (33%) | 5 (19%) | 37 | 31.35% | 4.531 |
| EMPLOY | 27 (82%) | 26 (90%) | 23 (77%) | 21 (81%) | 97 | 82.20% | 1.769 |
| WXPYRS | 28 (85%) | 20 (69%) | 26 (87%) | 25 (96%) | 99 | 83.89% | 7.870** |
| FAMEXP | 4 (12%) | 9 (31%) | 8 (27%) | 5 (19%) | 26 | 22.03% | 3.749 |
| EXTAUDIT | 8 (24%) | 7 (24%) | 4 (13%) | 8 (31%) | 27 | 22.88% | 2.527 |
| CFO | 9 (27%) | 7 (24%) | 7 (23%) | 3 (12%) | 26 | 22.03% | 2.299 |
| BDEXP | 17 (52%) | 15 (52%) | 16 (53%) | 9 (35%) | 57 | 48.31% | 2.527 |
| ACEXP | 15 (46%) | 9 (31%) | 11 (37%) | 4 (15%) | 39 | 33.05% | 6.192 |
| CPA | 7 (21%) | 9 (31%) | 9 (30%) | 7 (27%) | 32 | 27.11% | 0.934 |
| CERTIFY | 17 (52%) | 13 (45%) | 11 (37%) | 10 (39%) | 51 | 43.22% | 1.721 |
| SOX | 6 (18%) | 11 (38%) | 6 (20%) | 5 (19%) | 28 | 23.72% | 4.314 |
| SUPPORT | 10 (30%) | 18 (62%) | 10 (33%) | 10 (39%) | 48 | 40.67% | 7.695 |
| COOLOFF | 23 (70%) | 19 (66%) | 17 (57%) | 20 (77%) | 79 | 66.94% | 2.742 |

Notes:

[a] See Table 1 for variable descriptions and Figure 1 for a pictorial presentation of the research design

[b] Participants in C1 (AAFV) condition received a favorable inspection report and were told that there were no previous personal or working relationship between management and the auditor.

[c] Participants in C2 (AAUF) condition received an unfavorable inspection report and were told that there were no previous personal or working relationship between management and the auditor.

[d] Participants in C3 (APFV) condition received a favorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm

[e] Participants in C4 (APUF) condition received an unfavorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm.

AA=Affiliation Absent, AP=Affiliation Present, FV=Favorable results, UF=Unfavorable results

[f] Pearson Chi-Square statistics; ***/** - represents significance at less than 1, 5 percent respectively (2-sided).

INSPECTION and AFFILIATION are manipulated variables.

Table 6

*Descriptive Statistics on Non-Categorical Variables by Cell*

Number of Participants: N=118

| Variables[a] (N) | Variable Type[b] | C1-AAFV[c] (33) | C2-AAUF[d] (29) | C3-APFV[e] (30) | C4-APUF[f] (26) | TOTAL (118) |
|---|---|---|---|---|---|---|
| PERCEP: | | | | | | |
| Mean | DV | 53.15 | 30.48 | 43.57 | 23.42 | 38.59 |
| (SD) | | (4.11) | (9.93) | (9.29) | (7.97) | (14.03) |
| Median | | 54.00 | 31.00 | 45.00 | 25.00 | 41.00 |
| SELECT: | | | | | | |
| Mean | DV | 5.67 | 2.48 | 4.60 | 2.50 | 3.92 |
| (SD) | | (0.99) | (1.21) | (1.63) | (1.39) | (1.91) |
| Median | | 6.00 | 2.00 | 5.00 | 2.00 | 3.00 |
| AGE: | | | | | | |
| Mean | COV | 48.30 | 48.86 | 47.14 | 49.08 | 48.32 |
| (SD) | | (9.68) | (11.34) | (10.18) | (11.58) | (10.55) |
| Median | | 47.00 | 49.50 | 44.00 | 48.00 | 47.00 |
| PCAOBFAM: | | | | | | |
| Mean | COV | 5.45 | 6.21 | 5.23 | 5.35 | 5.56 |
| (SD) | | (3.42) | (3.76) | (3.30) | (3.27) | (3.42) |
| Median | | 5.00 | 6.00 | 4.00 | 4.00 | 4.00 |

Notes:
[a] See Table 1 for variable descriptions and Figure 1 for a pictorial presentation of the research design
[b] DV=dependent variable, COV=covariate or control variable
[c] Participants in C1 (AAFV) condition received a favorable inspection report and were told that there were no previous personal or working relationship between management and the auditor
[d] Participants in C2 (AAUF) condition received an unfavorable inspection report and were told that there were no previous personal or working relationship between management and the auditor
[e] Participants in C3 (APFV) condition received a favorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm
[f] Participants in C4 (APUF) condition received an unfavorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm.
AA=Affiliation Absent, AP=Affiliation Present, FV=Favorable inspection results, UF=Unfavorable inspection results

Table 7

*Pearson and Spearman Correlation Coefficients*

| | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [1] | SELECT | | ***.810*** | ***.701*** | .145 | -.093 | .023 | .035 | -.047 | .096 | .041 | -.106 | -.135 | .024 | .168 | .183 | -.093 | .030 | ***-.185*** | -.046 | -.145 | -.041 |
| [2] | PERCEP | ***.804*** | | ***.766*** | ***.298*** | .018 | .066 | -.005 | -.056 | -.056 | .009 | -.156 | -.178 | .070 | .137 | .137 | -.042 | .087 | -.129 | -.063 | .014 | -.054 |
| [3] | INSPECTION | ***.680*** | ***.753*** | | -.003 | -.057 | -.058 | -.040 | -.028 | -.079 | .053 | -.077 | -.098 | .087 | .087 | ***.187*** | -.041 | .026 | -.118 | -.066 | ***-.195*** | -.079 |
| [4] | AFFILIATION | .158 | ***.322*** | -.003 | | .024 | .097 | .076 | .094 | .090 | ***-.185*** | -.027 | .033 | .096 | .070 | .127 | -.031 | .110 | .091 | .076 | .096 | .018 |
| [5] | AGE | -.102 | .039 | -.046 | .026 | | .179 | -.102 | -.127 | ***-.303*** | ***.458*** | .019 | -.098 | .039 | ***.238*** | .067 | ***-.185*** | -.090 | -.084 | -.098 | ***.248*** | -.079 |
| [6] | GENDER | .030 | .035 | -.058 | .097 | .166 | | .031 | .023 | .070 | .114 | .069 | .086 | .151 | .021 | .127 | .014 | .031 | .023 | ***.223*** | .019 | -.091 |
| [7] | DEGREE | .033 | -.003 | -.040 | .076 | -.079 | .031 | | ***.206*** | .177 | -.051 | .088 | .093 | .015 | -.071 | .020 | ***.186*** | .081 | .170 | .166 | .004 | -.084 |
| [8] | EDUCATED | -.055 | -.045 | -.028 | .094 | -.107 | .023 | ***.206*** | | .123 | -.002 | -.051 | -.107 | .037 | -.105 | -.125 | ***.204*** | ***.222*** | .009 | .066 | -.039 | .009 |
| [9] | EMPLOY | .092 | -.066 | -.079 | .090 | ***-.311*** | .070 | .177 | .123 | | -.083 | .140 | -.010 | .140 | -.038 | -.050 | ***.184*** | ***.182*** | .155 | ***.252*** | ***-.201*** | .050 |
| [10] | WXPYRS | .028 | .018 | .053 | ***-.185*** | ***.478*** | .114 | -.051 | -.002 | -.083 | | .010 | -.091 | .066 | .100 | -.084 | -.044 | .010 | -.081 | -.057 | .034 | -.063 |
| [11] | FAMEXP | -.110 | -.146 | -.077 | -.027 | .018 | .069 | .088 | -.051 | .140 | .010 | | .002 | ***.359*** | ***.182*** | ***.322*** | -.002 | -.051 | .136 | ***.273*** | -.066 | -.148 |

| | | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] | [16] | [17] | [18] | [19] | [20] | [21] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [12] | EXTAUDIT | -.138 | -.167 | -.098 | .033 | -.097 | .086 | .093 | -.107 | -.010 | -.091 | .002 | | .002 | -.082 | .046 | ***.348*** | .176 | ***.360*** | ***.236*** | -.123 | ***-.218*** |
| [13] | CFO | .011 | .047 | .087 | .096 | .051 | .151 | .015 | .037 | .140 | .066 | ***.359*** | .002 | | ***.264*** | ***.322*** | .136 | .114 | -.008 | ***.189*** | -.024 | -.061 |
| [14] | BDEXP | .152 | .122 | .087 | .070 | ***.222*** | .021 | -.071 | -.105 | -.038 | .100 | ***.182*** | -.082 | ***.264*** | | ***.474*** | -.056 | .115 | -.061 | .001 | -.145 | .066 |
| [15] | ACEXP | .169 | .129 | ***.187*** | .127 | .053 | .127 | .020 | -.125 | -.050 | -.084 | ***.322*** | .046 | ***.322*** | ***.474*** | | -.023 | .042 | .074 | ***.350*** | .005 | -.004 |
| [16] | CPA | -.093 | -.064 | -.041 | -.031 | ***-.183*** | .014 | ***.186*** | ***.204*** | ***.184*** | -.044 | -.002 | ***.348*** | .136 | -.056 | -.023 | | ***.699*** | ***.422*** | ***.297*** | -.117 | -.098 |
| [17] | CERTIFY | .024 | .078 | .026 | .110 | -.079 | .031 | .081 | ***.222*** | ***.182*** | .010 | -.051 | .176 | .114 | .115 | .042 | ***.699*** | | ***.237*** | ***.294*** | -.061 | .031 |
| [18] | SOX | ***-.199*** | -.139 | -.118 | .091 | -.101 | .023 | .170 | .009 | .155 | -.081 | .136 | ***.360*** | -.008 | -.061 | .074 | ***.422*** | ***.237*** | | ***.376*** | -.056 | ***-.286*** |
| [19] | PCAOBFAM | -.063 | -.068 | -.078 | .065 | -.078 | ***.215*** | .163 | .049 | ***.232*** | -.065 | ***.283*** | ***.219*** | ***.206*** | -.019 | ***.354*** | ***.275*** | ***.274*** | ***.384*** | | .041 | -.038 |
| [20] | SUPPORT | -.143 | .016 | ***-.195*** | .096 | ***.252*** | .019 | .004 | -.039 | ***-.201*** | .034 | -.066 | -.123 | -.024 | -.145 | .005 | -.117 | -.061 | -.056 | .072 | | .068 |
| [21] | COOLOFF | -.025 | -.066 | -.079 | .018 | -.062 | -.091 | -.084 | .009 | .050 | -.063 | -.148 | ***-.218*** | -.061 | .066 | -.004 | -.031 | -.098 | ***-.286*** | -.067 | .068 | |

Correlations of the variables used in the models are presented in this table. Pearson (Spearman) correlations are listed above (below) the diagonal. Correlations in bold and italicized are significant at < 0.05 level (two-tailed). Variable definitions are presented in Table 1.

Table 8

*ANOVA and Hypotheses Results: Audit Quality Perception*

Panel A: Between-Subject ANOVA (N=118)

| Source | df | Mean Square | F-Statistic | Partial Eta-squared | p-value (1-tailed) |
|---|---|---|---|---|---|
| Corrected Model | 3 | 5209.093 | 80.300 | 0.679 | .000 |
| INSPECTION (H1a) | 1 | 13419.887 | 206.873 | 0.645 | .000 |
| AFFILIATION (H2a) | 1 | 2028.401 | 31.269 | 0.215 | .000 |
| INSPECTION*AFFILIATION (H3a) | 1 | 46.686 | 0.720 | 0.006 | .199 |
| Residual | 114 | 64.870 | | | |

Panel B: Planned Comparisons (N=118)

| Hypothesis | Cell[a] Comparison | N | Mean | Standard Deviation | t-statistic | Eta-squared | p-value (1-tailed) |
|---|---|---|---|---|---|---|---|
| H1a | Favorable [C1, C3] > | 63 | 48.59 | 8.51 | 12.824 | 0.545 | .000 |
| | Unfavorable [C2, C4] | 55 | 27.15 | 9.66 | | | |
| H2a | Absent [C1, C2] > | 62 | 42.55 | 13.57 | 3.362 | 0.089 | .001 |
| | Present [C3, C4] | 56 | 34.21 | 13.31 | | | |

Panel C: Cell Comparisons (N=118)

| Cell[a] Comparison | Cell Description | N | Mean | Standard Deviation | t-statistic | Eta-squared | p-value (1-tailed) |
|---|---|---|---|---|---|---|---|
| C1 > C2 | AAFV > AAUF | 33 | 53.15 | 4.109 | 11.457 | 0.686 | .000 |
| | | 29 | 30.48 | 9.934 | | | |
| C1 > C3 | AAFV > APFV | 33 | 53.15 | 4.109 | 5.207 | 0.308 | .000 |
| | | 30 | 43.57 | 9.291 | | | |
| C1 > C4 | AAFV > APUF | 33 | 53.15 | 4.109 | 17.293 | 0.840 | .000 |
| | | 26 | 23.42 | 7.971 | | | |
| C2 > C4 | AAUF > APUF | 29 | 30.48 | 9.934 | 2.885 | 0.136 | .003 |
| | | 26 | 23.42 | 7.971 | | | |
| C3 > C2 | APFV > AAUF | 30 | 43.57 | 9.291 | 5.227 | 0.324 | .000 |
| | | 29 | 30.48 | 9.934 | | | |
| C3 > C4 | APFV > APUF | 30 | 43.57 | 9.291 | 8.636 | 0.580 | .000 |
| | | 26 | 23.42 | 7.971 | | | |

Notes:
p-values are reported one (two)-tailed if a prediction is (is not) stated; p-values <.01 are bold & italicized.
The dependent variable is PERCEP. Participants were asked to indicate their level of confidence on nine questions relating to perception of audit quality each on a 7-point Likert scale ranging from 1= not very confident to 7=very confident (Max score=63).
*INSPECTION* is an indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise. Participants in the favorable conditions received inspection reports with no audit deficiencies or quality control defects. Participants in the unfavorable conditions received inspection reports with several severe audit deficiencies and quality control defects.
*AFFILIATION* is an indicator variable equal to 1 if there is no affiliation between management and auditor, 0 otherwise. Participants in the affiliation absent conditions were told that "no member of management has any prior or existing relationship with the audit firm's partners or staff." Participants in the affiliation present conditions were told that both the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm.
[a] Participants in Cl (AAFV) received a favorable inspection report and were told that there were no previous personal or working relationship between management and the auditor; participants in C2 (AAUF) received an unfavorable inspection report and were told that there were no previous personal or working relationship between management and the auditor; participants in C3 (APFV) received a favorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm, participants in C4 (APUF) received an unfavorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm.

Table 9

*ANCOVA Results: Audit Quality Perception*

$PERCEP = f(\beta_0 + \beta_1 INSPECTION + \beta_2 AFFILIATION + \beta_3 INSPECTION*AFFILIATION + \beta_4 AGE + \beta_5 GENDER + \beta_6 DEGREE + \beta_7 EDUCATED + \beta_8 EMPLOY + \beta_9 WXPYRS + \beta_{10} FAMEXP + \beta_{11} EXTAUDIT + \beta_{12} CFO + \beta_{13} BDEXP + \beta_{14} ACEXP + \beta_{15} CPA + \beta_{16} CERTIFY + \beta_{17} SOX + \beta_{18} PCAOBFAM + \beta_{19} SUPPORT + \beta_{20} COOLOFF)$

| | | PERCEP[a] | | | |
|---|---|---|---|---|---|
| Variable[b] (N=118) | Predicted Signs | Coefficient | p-value[c] | | Partial Eta Squared |
| Intercept | | 53.383 | .000 | *** | 0.341 |
| INSPECTION (H1a) | + | 19.191 | .000 | *** | 0.673 |
| AFFILIATION (H2a) | + | 5.014 | .000 | *** | 0.207 |
| INSPECTION*AFFILIATION (H3a) | + | 5.580 | .043 | * | 0.030 |
| AGE | ? | -0.041 | .643 | | 0.002 |
| GENDER | ? | 3.383 | .029 | * | 0.048 |
| DEGREE | + | 2.414 | .188 | | 0.008 |
| EDUCATED | + | -2.709 | .056 | | 0.026 |
| EMPLOY | + | -0.010 | .498 | | 0.000 |
| WXPYRS | + | -1.453 | .267 | | 0.004 |
| FAMEXP | + | -2.173 | .143 | | 0.012 |
| EXTAUDIT | - | -4.926 | .008 | *** | 0.059 |
| CFO | - | -1.005 | .307 | | 0.003 |
| BDEXP | + | 4.127 | .014 | ** | 0.049 |
| ACEXP | + | -3.125 | .067 | | 0.023 |
| CPA | - | 2.742 | .151 | | 0.011 |
| CERTIFY | - | 0.332 | .440 | | 0.000 |
| SOX | ? | -1.316 | .532 | | 0.004 |
| PCAOBFAM | ? | 0.038 | .889 | | 0.000 |
| SUPPORT | + | 4.789 | .003 | *** | 0.078 |
| COOLOFF | + | -1.990 | .118 | | 0.014 |
| R square (Adjusted R-square) | = | 0.755 (0.704) | | | |

Notes:
[a] The dependent variable is PERCEP. Participants were asked to indicate their level of confidence on nine questions relating to perception of audit quality each on a 7-point Likert scale ranging from 1= not very confident to 7=very confident (max score = 63).
[b] Variable definitions are presented in Table 1.
[c] p-values of the estimated parameters are reported one (two)-tailed if a prediction is (is not) stated; ***/**/* = p-values less than 1, 2.5 and 5 percent, respectively.

Table 10

*Hypotheses Results: Auditor Selection adjusted for Perception*

Panel A: Between-Subject ANCOVA (N=118)

| Source | df | Mean Square | F-Statistic | Partial Eta-squared | p-value (1-tailed) |
|---|---|---|---|---|---|
| Corrected Model | 4 | 73.011 | 61.982 | 0.687 | .000 |
| PERCEP | 1 | 65.167 | 55.323 | 0.329 | .000 |
| INSPECTION (H1b) | 1 | 4.163 | 3.534 | 0.030 | .032 |
| AFFILIATION (H2b) | 1 | 1.512 | 1.284 | 0.011 | .130 |
| INSPECTION*AFFILIATION (H3b) | 1 | 5.218 | 4.430 | 0.038 | .019 |
| Residual | 113 | 1.178 | | | |

Panel B: Planned Comparisons (N=118)

| Hypothesis | Cell[a] Comparison | N | Mean | Standard Deviation | t-statistic | p-value (1-tailed) |
|---|---|---|---|---|---|---|
| H1b | Favorable [C1, C3] > | 63 | 4.22 | 0.084 | 13.820 | .000 |
| | Unfavorable [C2, C4] | 55 | 3.57 | 0.343 | | |
| H2b | Absent [C1, C2] > | 62 | 3.81 | 0.531 | -3.336 | .001 |
| | Present [C3, C4] | 56 | 4.04 | 0.105 | | |

Panel C: Cell Comparisons (N=118)

| Cell[a] Comparison | Cell Description[a] | N | Mean | Standard Deviation | t-statistic | p-value (1-tailed) |
|---|---|---|---|---|---|---|
| C1 > C2 | AAFV > AAUF | 33 | 4.30 | 0.000 | 5.718E15 | .000 |
| | | 29 | 3.24 | 0.000 | | |
| C1 > C3 | AAFV > APFV | 33 | 4.30 | 0.000 | 7.304E14 | .000 |
| | | 30 | 4.13 | 0.000 | | |
| C1 > C4 | AAFV > APUF | 33 | 4.30 | 0.000 | 1.558E15 | .000 |
| | | 26 | 3.92 | 0.000 | | |
| C2 > C4 | AAUF > APUF | 29 | 3.24 | 0.000 | -4.260E15 | .000 |
| | | 26 | 3.92 | 0.000 | | |
| C3 > C2 | APFV > AAUF | 30 | 4.13 | 0.000 | 6.380E15 | .000 |
| | | 20 | 3.24 | 0.000 | | |
| C3 > C4 | APFV > APUF | 30 | 4.13 | 0.000 | 1.001E15 | .000 |
| | | 26 | 3.92 | 0.000 | | |

Notes:

Dependent variable is SELECT. Participants were asked to indicate the likelihood of recommending the audit firm being analyzed on a 7-point Likert scale ranging from 1= extremely unlikely to 7 = extremely likely (Max score=7).

*INSPECTION* is an indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise. Participants in the favorable conditions received inspection reports with no audit deficiencies or quality control defects. Participants in the unfavorable conditions received inspection reports with several severe audit deficiencies and quality control defects.

*AFFILIATION* is an indicator variable equal to 1 if there is no affiliation between management and auditor, 0 otherwise. Participants in the affiliation absent conditions were told that "no member of management has any prior or existing relationship with the audit firm's partners or staff." Participants in the affiliation present conditions were told that both the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm.

[a] Participants in Cl (AAFV) received a favorable inspection report and were told that there were no previous personal or working relationship between management and the auditor; participants in C2 (AAUF) received an unfavorable inspection report and were told that there were no previous personal or working relationship between management and the auditor; participants in C3 (APFV) received a favorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm, participants in C4 (APUF) received an unfavorable inspection report and were told that the CFO and the Director of Internal Audit of the company were former audit partners of the prospective audit firm. Cell comparisons are based on the estimated marginal means after controlling for PERCEP.

Table 11

*ANCOVA Results: Auditor Selection*

$SELECT = f(\beta_0 + \beta_1 INSPECTION + \beta_2 AFFILIATION + \beta_3 INSPECTION*AFFILIATION + \beta_4 PERCEP + \beta_5 AGE + \beta_6 GENDER + \beta_7 DEGREE + \beta_8 EDUCATED + \beta_9 EMPLOY + \beta_{10} WXPYRS + \beta_{11} FAMEXP + \beta_{12} EXTAUDIT + \beta_{13} CFO + \beta_{14} BDEXP + \beta_{15} ACEXP + \beta_{16} CPA + \beta_{17} CERTIFY + \beta_{18} SOX + \beta_{19} PCAOBFAM + \beta_{20} SUPPORT + \beta_{21} COOLOFF)$

| | | SELECT[a] | | | |
|---|---|---|---|---|---|
| Variables[b](N=118) | Predicted Signs | Coefficients | p-value[c] | | Partial Eta Squared |
| Intercept | | 0.070 | .947 | | 0.000 |
| INSPECTION (H1b) | + | -0.034 | .467 | NS | 0.010 |
| AFFILIATION (H2b) | + | -0.703 | .019 | ** | 0.017 |
| INSPECTION*AFFILIATION (H3b) | + | 0.787 | .041 | * | 0.031 |
| PERCEP | + | 0.100 | .000 | *** | 0.353 |
| AGE | ? | -0.017 | .149 | | 0.022 |
| GENDER | ? | -0.052 | .808 | | 0.001 |
| DEGREE | + | 0.370 | .161 | | 0.010 |
| EDUCATED | + | 0.097 | .340 | | 0.002 |
| EMPLOY | + | 0.807 | .004 | *** | 0.074 |
| WXPYRS | + | 0.310 | .167 | | 0.010 |
| FAMEXP | + | -0.022 | .468 | | 0.000 |
| EXTAUDIT | - | 0.175 | .267 | | 0.004 |
| CFO | - | -0.414 | .066 | | 0.024 |
| BDEXP | + | 0.267 | .153 | | 0.011 |
| ACEXP | + | 0.418 | .073 | | 0.022 |
| CPA | - | -0.241 | .254 | | 0.005 |
| CERTIFY | - | -0.112 | .356 | | 0.001 |
| SOX | ? | -0.440 | .128 | | 0.024 |
| PCAOBFAM | ? | -0.001 | .984 | | 0.000 |
| SUPPORT | + | -0.225 | .172 | | 0.009 |
| COOLOFF | + | -0.181 | .215 | | 0.006 |
| R square (Adjusted R square) | = | 0.756 (0.702) | | | |

Notes:
[a] Dependent variable is SELECT. Participants were asked to indicate the likelihood of recommending the audit firm being analyzed on 7-point Likert scale ranging from 1= extremely unlikely to 7 = extremely likely (max score=7).
[b] Variable definitions are presented in Table 1.
[c] p-values of the estimated parameters are reported one (two)-tailed if a prediction is (is not) stated;
***/**/* = p-values less than 1, 2.5 and 5 percent, respectively. NS=not statistically significant

Table 12

*MANOVA Results*

Panel A: Between-Subject MANOVA (N=118)

| Effect | | Value | F-Statistic | Hypothesis df | Error df | p-value (2-tailed) | Partial Eta Squared |
|---|---|---|---|---|---|---|---|
| INSPECTION | Pillai's Trace | 0.655 | 107.502 | 2 | 113 | .000 | 0.655 |
| | Wilks' Lambda | 0.345 | 107.502 | 2 | 113 | .000 | 0.655 |
| AFFILIATION | Pillai's Trace | 0.224 | 16.315 | 2 | 113 | .000 | 0.224 |
| | Wilks' Lambda | 0.776 | 16.315 | 2 | 113 | .000 | 0.224 |
| INSPECTION * | Pillai's Trace | 0.044 | 2.586 | 2 | 113 | .080 | 0.044 |
| AFFILIATION | Wilks' Lambda | 0.956 | 2.586 | 2 | 113 | .080 | 0.044 |

Panel B: Follow-up Analyses-Between-Subject Effects (Individual ANOVAs) (N=118)

| Source | Dependent Variable | df | Mean Square | F-Statistic | p-value (1-tailed) | Partial Eta Squared |
|---|---|---|---|---|---|---|
| Corrected Model | SELECT | 3 | 75.626 | 43.482 | .000 | 0.534 |
| | PERCEP | 3 | 5209.093 | 80.300 | .000 | 0.679 |
| INSPECTION | SELECT | 1 | 204.419 | 117.533 | .000 | 0.508 |
| | PERCEP | 1 | 13419.887 | 206.873 | .000 | 0.645 |
| AFFILIATION | SELECT | 1 | 8.063 | 4.636 | .017 | 0.039 |
| | PERCEP | 1 | 2028.401 | 31.269 | .000 | 0.215 |
| INSPECTION*AFFILIATION | SELECT | 1 | 8.602 | 4.946 | .014 | 0.042 |
| | PERCEP | 1 | 46.686 | 0.720 | .199 | 0.006 |
| Residual | SELECT | 114 | 1.739 | | | |
| | PERCEP | 114 | 64.870 | | | |

Note: Variable definitions are presented in Table 1.

Table 13

*Logistic Regression Results: Auditor Selection*

$$SELECT2GP(0,1) = f(\beta_0 + \beta_1 INSPECTION + \beta_2 AFFILIATION + \beta_3 INSPECTION*AFFILIATION + \beta_4 PERCEP + \beta_5 AGE + \beta_6 GENDER + \beta_7 DEGREE + \beta_8 EDUCATED + \beta_9 EMPLOY + \beta_{10} WXPYRS + \beta_{11} FAMEXP + \beta_{12} EXTAUDIT + \beta_{13} CFO + \beta_{14} BDEXP + \beta_{15} ACEXP + \beta_{16} CPA + \beta_{17} CERTIFY + \beta_{18} SOX + \beta_{19} PCAOBFAM + \beta_{20} SUPPORT + \beta_{21} COOLOFF)$$

| | | SELECT2GP[a] | | | |
|---|---|---|---|---|---|
| Variables[b](N=118) | Predicted Signs | Coefficients | p-value | | Odds-Ratio |
| Intercept | | | | | |
| PERCEP | + | 0.379 | .005 | *** | 1.461 |
| INSPECTION | + | -1.328 | .447 | | 0.265 |
| AFFILIATION | + | -5.886 | .036 | * | 0.003 |
| INSPECTION*AFFILIATION | + | 5.737 | .079 | | 310.150 |
| AGE | ? | -0.137 | .082 | | 0.872 |
| GENDER | ? | -1.243 | .290 | | 0.288 |
| DEGREE | + | 1.518 | .416 | | 4.561 |
| EDUCATED | + | 3.008 | .092 | | 20.243 |
| EMPLOY | + | 4.159 | .035 | * | 63.987 |
| WXPYRS | + | 3.465 | .081 | | 31.978 |
| FAMEXP | + | .291 | .824 | | 1.338 |
| EXTAUDIT | - | 1.684 | .214 | | 5.388 |
| CFO | - | -0.676 | .612 | | 0.508 |
| BDEXP | + | 1.977 | .172 | | 7.223 |
| ACEXP | + | 2.283 | .199 | | 9.804 |
| CPA | - | -2.631 | .158 | | 0.072 |
| CERTIFY | - | 0.487 | .755 | | 1.627 |
| SOX | ? | -0.267 | .824 | | 0.765 |
| PCAOBFAM | ? | -0.079 | .707 | | 0.924 |
| SUPPORT | + | 1.997 | .204 | | 7.365 |
| COOLOFF | + | -3.073 | .040 | * | 0.046 |
| Pseudo R square[c] = | | 0.636 | | | |
| Percent Accuracy in Classification (PAC) | | 94.1% | | | |

Chi-Square (df =21, N=118) = 119.187

[a] Dependent variable is SELECT2GP. Indicator variable equal to 1 if score on the "likelihood of recommending" scale is 5 or above, 0 otherwise. [b] Variable definitions are presented in Table 1.

[c] Cox and Snell R square is reported, Nagelkerke R square = .849

***/**/* = p-values less than 1, 2.5 and 5 percent, respectively.

## APPENDIX D: FIGURES

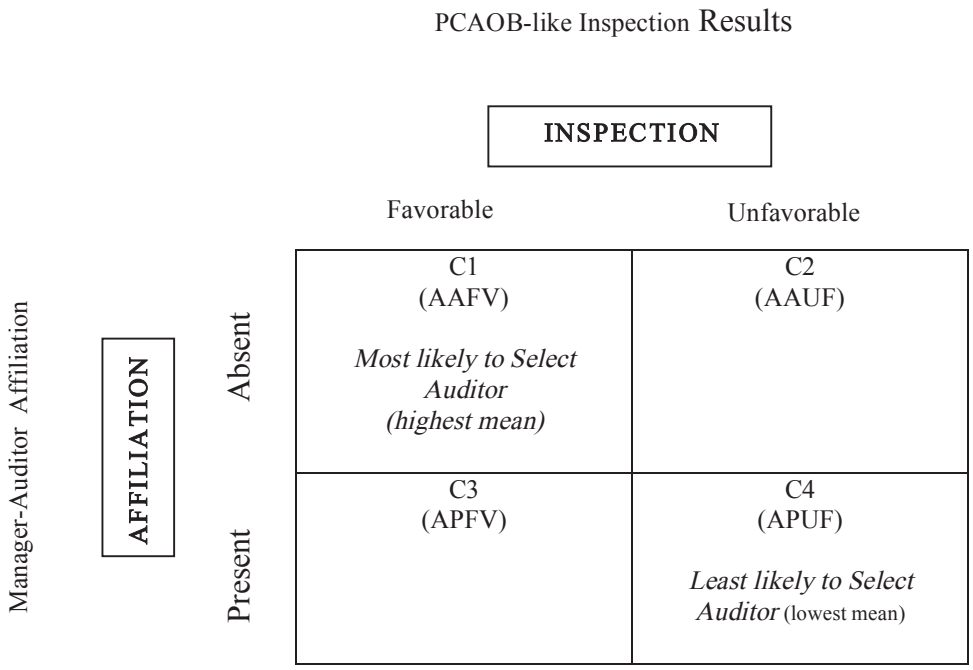



*Figure 1.* 2 x 2 Between-Subject Research Design.

Notes:
Participants were asked to indicate their level of level of confidence on nine items relating to perception of audit quality on a 7-point Likert scale ranging from 1=not very confident to 7=very confident. They were also asked to indicate the =likelihood that they would recommend the auditor on a 7-point Likert scale ranging from 1=extremely unlikely to 7=extremely likely.
INSPECTION is an indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise.
AFFILIATION is an indicator variable equal to 1 if there is no affiliation between management and the auditor, 0 otherwise.
C1-AAFV, C2-AAUF, C3-APFV, C4-APUF represents the four cells; in all cells, the participants were told that management recommended the audit firm being analyzed.
AA=Affiliation Absent, AP=Affiliation Present, FV=Favorable results, UF=Unfavorable results.

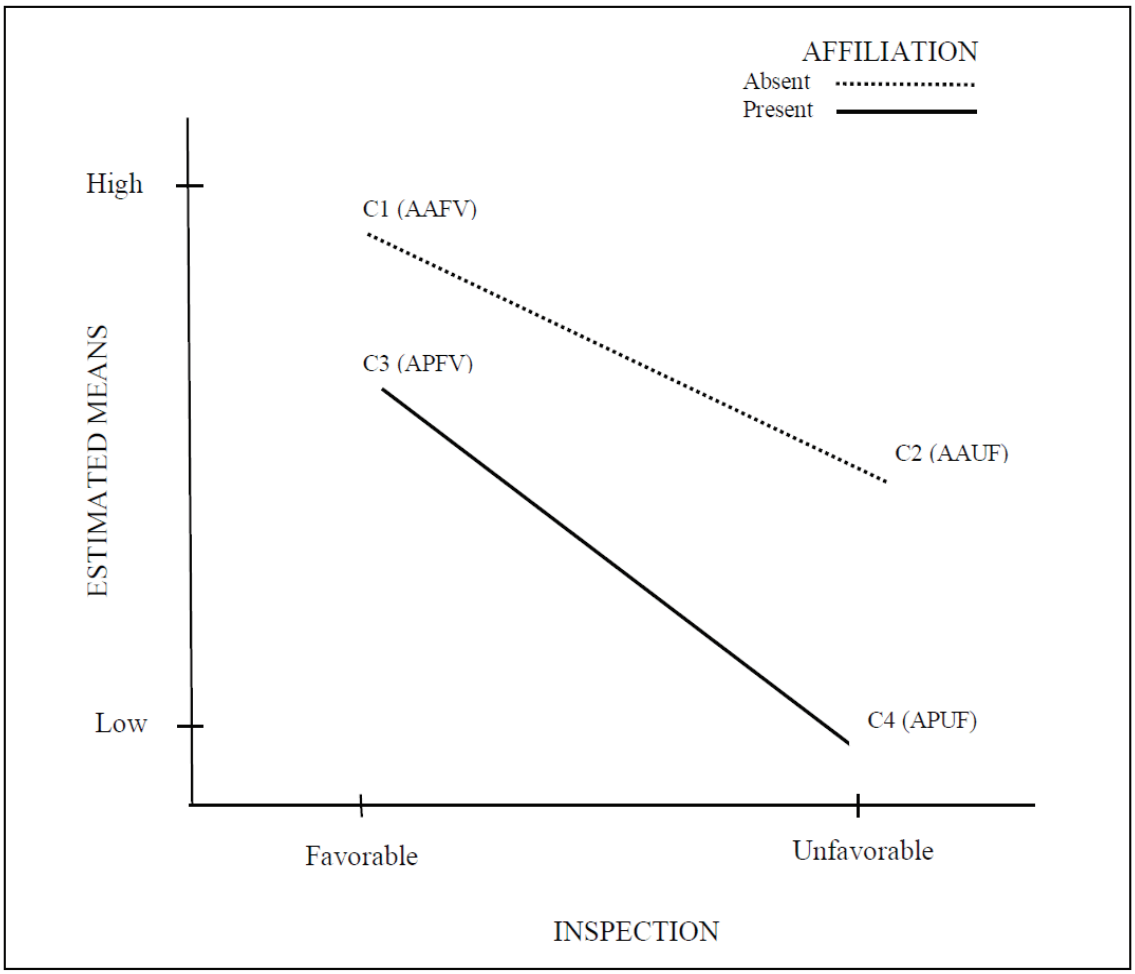



*Figure 2.* Predicted Effects of Predictors on Audit Quality Perception.

Notes:
PERCEP is the dependent variable. It measures participants' level of confidence on nine questions relating to perception of audit quality on a 7-point Likert scale ranging from 1= not very confident to 7=very confident.
INSPECTION is an indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise.
AFFILIATION is an indicator variable equal to 1 if there is no affiliation between management and the auditor, 0 otherwise.
C1 (AAFV); C2 (AAUF); C3 (APFV); C4 (APUF).
AA=Affiliation Absent, AP=Affiliation Present, FV=Favorable inspection results, UF=Unfavorable inspection results
H1a: C1, C3 > C2, C4; H2a: C1, C2 > C3, C4
Though not specifically hypothesized, I predict the following relationships:
C1 > [C2], [C3], [C4]; C2 > [C4]; C3 > [C2], [C4]

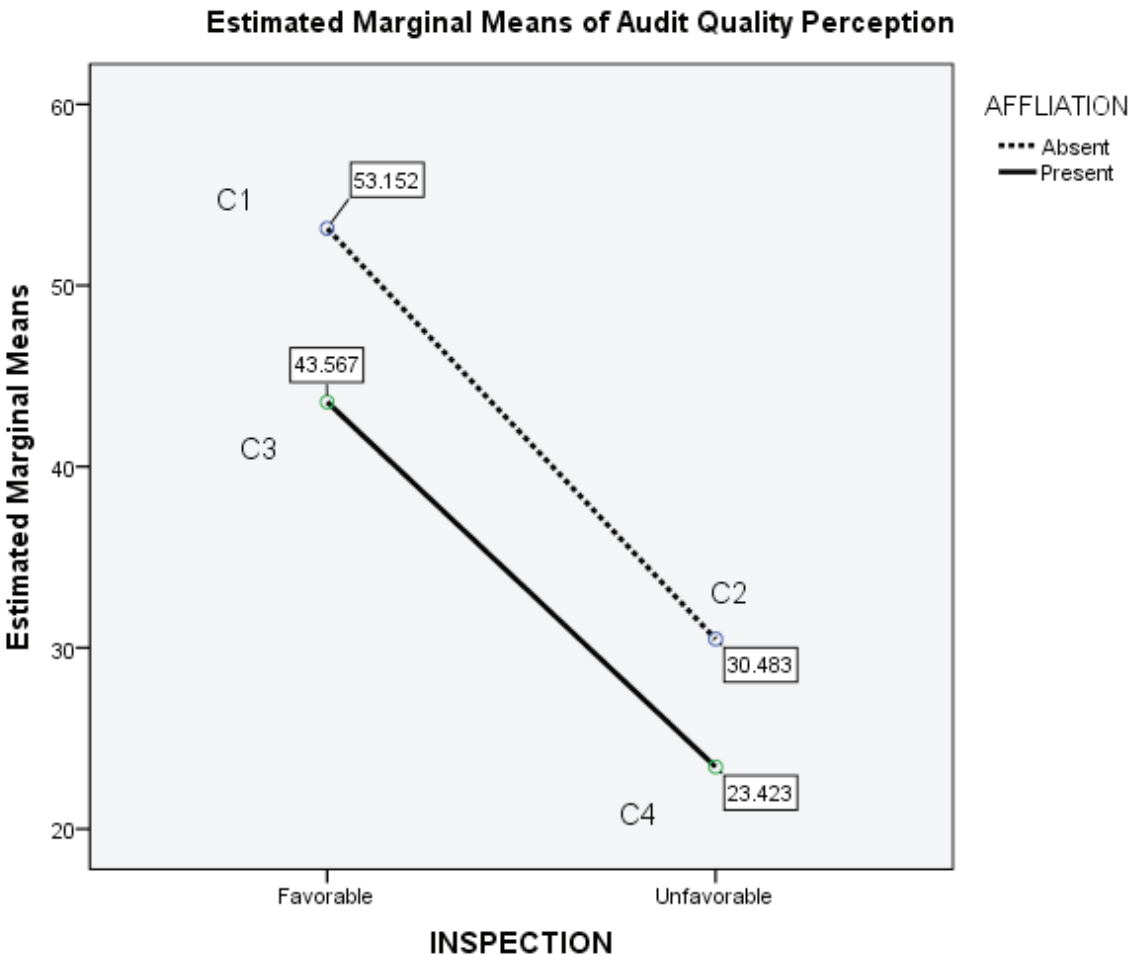
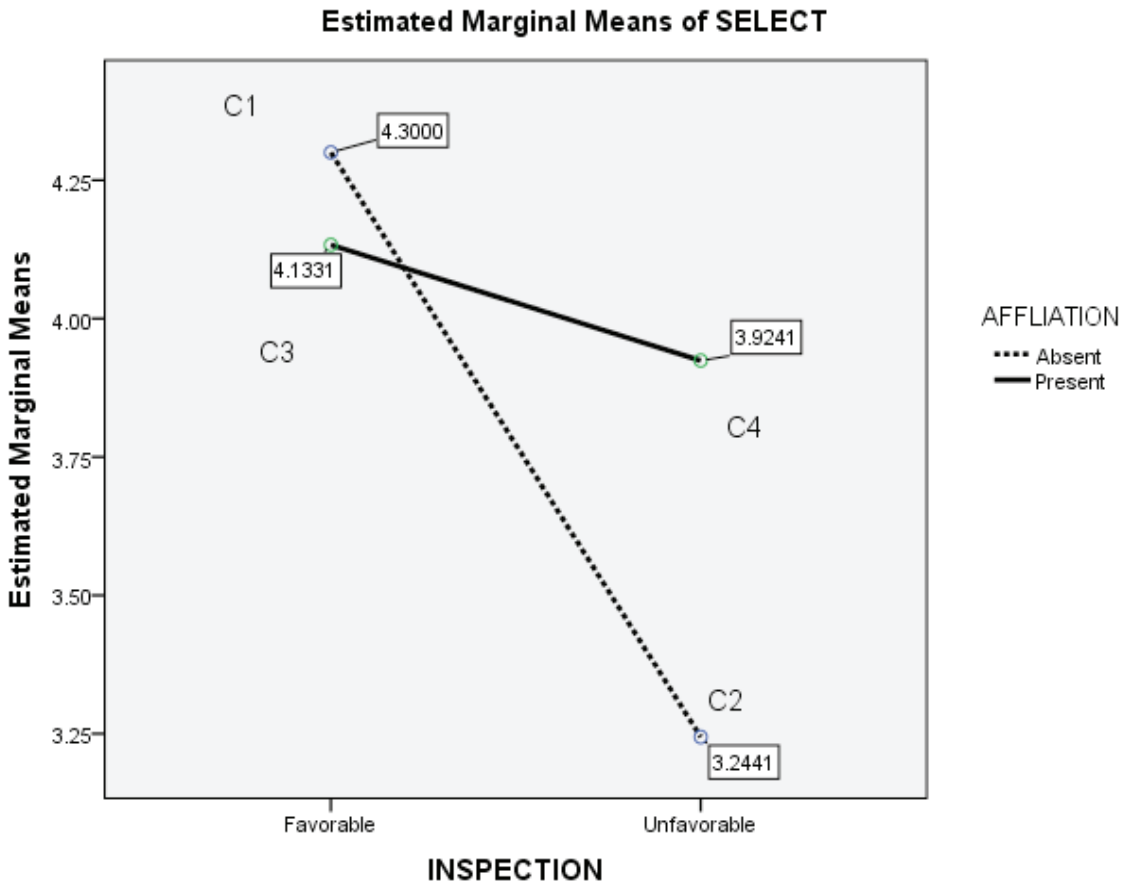



*Figure 3.* Plot of Estimated Marginal Means: Audit Quality Perception.

Notes:
PERCEP is a dependent variable. It measures participants' level of confidence on nine items relating to perception of audit quality on a 7-point Likert scale ranging from 1= not very confident to 7=very confident.
INSPECTION is an indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise.
AFFILIATION is an indicator variable equal to 1 if there is no affiliation between management and the auditor, 0 otherwise.
C1 (AAFV)=53.20; C2 (AAUF)=30.50; C3 (APFV)=43.60; C4 (APUF)=23.40
AA=Affiliation Absent, AP=Affiliation Present, FV=Favorable inspection results, UF=Unfavorable inspection results
H1a: C1, C3 > C2, C4 ***; H2a: C1, C2 > C3, C4*** (see Table 8, Panel B)
Additionally, C1 > C2***; C1 > C3***; C1 > C4***; C2 > C4***; C3 > C2***; C3 > C4***
(see Table 8, Panel C); *** = p-values less than 1 percent (one-tailed).




Covariates in the model are evaluated at the following values: Audit Quality Perception = 38.59

*Figure 4.* Plot of Estimated Marginal Means: Auditor Selection adjusted for Perception.

Notes:
SELECT is a dependent variable. It measures participants likelihood of recommending the audit firm on a 7-point Likert scale ranging from 1= extremely unlikely to 7 = extremely likely (max score=7).
INSPECTION is an indicator variable equal to 1 if auditor has favorable inspection results, 0 otherwise.
AFFILIATION is an indicator variable equal to 1 if there is no affiliation between management and the auditor, 0 otherwise.
C1 (AAFV) = 4.300; C2 (AAUF) = 3.244; C3 (APFV) = 4.311; C4 (APUF) = 3.924
AA=Affiliation Absent, AP=Affiliation Present, FV=Favorable results, UF=Unfavorable results
H1b: C1, C3 > C2, C4; H2b: C1, C2 < C3, C4 (see Table 10, Panel B)
Additionally, C1>C2***; C1>C3***; C1>C4***; C2<C4***; C3>C2***; C3>C4***
(see Table 10, Panel C) *** = p-values less than 1 percent (one-tailed).

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