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The Effects of Professional and Social Ties Between the CEO and the Audit Committee on Investor Decision Making

JEFFREY COHEN
PROFESSOR
BOSTON COLLEGE

LISA MILICI GAYNOR
ASSOCIATE PROFESSOR
UNIVERSITY OF SOUTH FLORIDA

GANESH KRISHNAMOORTHY
PROFESSOR
NORTHEASTERN UNIVERSITY

ARNIE WRIGHT
PROFESSOR
NORTHEASTERN UNIVERSITY

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The Effects of Professional and Social Ties Between the CEO and the Audit Committee on Investor Decision Making

ABSTRACT: Despite regulations that mandate that audit committees must be economically independent, the CEO may still influence audit committee members through prior connections with the CEO from either social ties (e.g., belonging to the same country club) or professional ties (e.g., having worked together or served on boards together). This study, using source credibility theory as a framework, examines whether knowledge of such ties affect investors' assessments of audit committee independence, competence, and effectiveness and, ultimately, investment decisions. The results of an experiment with 263 reasonably informed investors indicate that investors viewed the audit committee as more independent and effective and made more favorable investment decisions when no ties were present than when there were ties (social or professional) between audit committee members and the CEO. Further, audit committees with professional ties are viewed as more independent, competent, and effective than those with social ties. Results also indicate that both independence and competence mediate the relationship between ties and effectiveness. In all, the results indicate that knowledge of ties between the CEO and audit committee members significantly influences investors' assessments about audit committee effectiveness and investment decisions. These results suggest that the SEC should encourage companies to provide increased disclosures to investors about professional and social ties between management and members of the audit committee and should also consider the feasibility of requiring such disclosures.

Keywords: Audit committee, social ties, professional ties, corporate governance, CEO influence, investment decisions

Data Availability: Contact the authors.

INTRODUCTION

Prior research suggests that it is important to distinguish between the "substance" and the "form" of the independence of board committees (Carcello, Hermanson, and Ye 2011a; Carcello, Neal, Palmrose, and Scholz 2011b; Cohen, Krishnamoorthy, and Wright 2008). That is, boards and subcommittees may appear to be independent, but, in fact, they may not be substantively objective. For instance, all members of the audit committee may have no economic affiliation with the company or its management, yet some members may have prior social (friendship) or professional ties with the CEO or other members of top management. That is, audit committee members and management may have social ties if their children attend the same schools or if they belong to the same country club (Westphal and Stern 2006; Cohen et al. 2008). Alternatively, they can have professional ties by sitting on the same boards (Guedj and Barnea 2007).

These associations are potentially problematic as demonstrated by Carcello et al. (2011b) who report that companies are more likely to have restatements when the CEO has influence over the nominations committee that selected audit committee members, and such influence can be used to appoint members who have social or professional ties with the CEO. Further, Cohen, Gaynor, Krishnamoorthy, and Wright (2011) find that auditors are more willing to stand firm in disputes with management if auditors perceive an audit committee to be substantively independent as opposed to an audit committee that is legally independent but may still be under management's influence. Because of the potential negative impact, some have argued that social and professional ties should be more fully disclosed in proxy statements and other regulatory filings to deter improper behavior and to alert users of the financial statements (Cain, Loewenstein, and Moore 2005; Lerner and Tetlock 1999; Simonson and Nye 1992). This study investigates the impact that knowledge about audit committees' ties with the CEO has on investors' judgments regarding the quality (independence, competence, and overall effectiveness) of the audit committee and, consequently, on investment decisions.

Evidence of the existence of ties between the CEO and audit committee members are provided by Beasley, Carcello, Hermanson and Lapides (2000) who find that approximately one-third of audit committee members interviewed stated they had personal ties to management or other board members at the time they were nominated for membership to the board. Further, Westphal and Stern (2006) report that CEOs routinely recommend their friends for membership to boards. Prior archival research has shown that while social ties between the CEO and audit committee members impair financial reporting quality (Bruynseels and Cardinaels 2014; Carcello et al. 2011b), it is unclear whether professional ties enhance or harm reporting quality.[1] For example, professional ties may potentially have positive effects as a result of greater relevant expertise of audit committee members in their understanding and knowledge of board responsibilities or the business risks and accounting issues that are unique to the particular industry in question (Cohen, Hoitash, Krishnamoorthy, and Wright, 2014).

This study directly builds on the Bruynseels and Cardinaels (2014) study and extends that study in a number of important ways. First, the Bruynseels and Cardinaels study used an archival approach and hence is limited to studying the association between audit committee ties and financial reporting quality; our study uses a controlled experiment and thus provides an opportunity to make causal inferences. Second, we extend the Bruynseels and Cardinaels study by examining the effect of ties on perceptions of audit committee effectiveness and on

[1] Bruynseels and Cardinaels (2014) distinguish between two types of social ties: "friendship ties" and "advice" networks". The former relates to non-professional associations (e.g., joint memberships in leisure clubs and charities), and the latter to similar employment and education backgrounds. They posit and find that friendship ties have dysfunctional effects on reporting quality and auditor oversight due to close personal relationships and a lack of independence, while advice networks do not have a negative impact.

investment decisions. Third, we extend the Bruynseels and Cardinaels study through our focus on the effect of audit committee ties as it relates to decisions made by investors, an important stakeholder group.

Recent research (Chidambaran, Kedia and Prabhala 2010; Dey and Liu 2011) has addressed the extent to which professional or social networks influence board decision making, but no research has examined how investor *knowledge* of such ties affects investor's judgments. In this paper, we specifically examine these issues by addressing the following research questions: (1) Does knowledge of ties between the CEO and members of the audit committee impact investors' judgments of the independence, competence, and overall effectiveness of the audit committee in monitoring financial reporting? (2) Does knowledge of ties between the CEO and members of the audit committee ultimately then impact investors' investment decisions?

We use source credibility theory (Birnbaum and Stegner 1979) to develop the theoretical framework and related hypotheses in this study. The theory states that the credibility of the source is paramount in determining the value of evidence provided, and hence the quality of judgments and decisions made by evaluators of information. The SEC requires that the audit committee report to investors, including a statement of recommendation to the board of directors about whether or not the audited financial statements should be included in regulatory filings with the SEC. Thus, the audit committee provides assurance to investors about the quality of financial information provided by management and audited by independent accountants. However, the value of this assurance or monitoring is dependent on the credibility of the audit committee and the major components of credibility, source bias (or source objectivity) and source competence. Relying on source credibility theory, we hypothesize that knowledge of professional or social ties will affect investors' judgments of the independence, competence, and effectiveness of the audit committee, with the lowest assessments occurring when social ties exist. We also hypothesize that investors will make more favorable investment decisions when there are no ties between the audit committee members and the CEO than when there are professional or social ties, and further professional ties will be viewed more favorably than social ties due to the potential to enhance audit committee performance as a result of greater competence gained through business and industry experience.

To address the hypotheses, we conduct an experiment with 263 reasonably informed investors where we vary the disclosure regarding the ties between the audit committee and the CEO (no ties, professional ties, and social ties). The use of an experimental approach complements archival work (Bruynseels and Cardinaels 2014) in that in an experiment we can explicitly control the nature of ties, while archival research must rely on currently mandated disclosures which are incomplete with respect to disclosure about ties between audit committee members and management (e.g., currently there is no regulatory requirement to disclose social ties between the audit committee member and the management). As a result, archival studies measure professional ties and social ties in a number of different ways and at times combine ties into a single measure, thus, confounding potential differences (Bruynseels and Cardinaels 2014; Chidambaran et al. 2010; Westphal 1999).

Consistent with expectations, the results of our study indicate that investors who were informed that there were no professional or social ties between the CEO and the audit committee viewed the audit committee as more independent and effective than in all other conditions. Moreover, we find that audit committees with professional ties to the CEO are viewed as more competent and effective than those with social ties. Further, the results indicate that both independence and competence mediate the relationship between ties and effectiveness. Finally, we find that investors made more favorable investment decisions when: there were no ties between the audit committee members and the CEO than when there were either professional or social ties; and when there were professional ties than social ties.

The remainder of the paper is organized into four sections. The next section provides an overview of prior research and presents the hypotheses. This section is followed by a description of the research method and presentation of the results, respectively. The final section discusses the major findings and their implications for future research and practice.

PRIOR LITERATURE AND RESEARCH HYPOTHESES

Financial reporting quality and ties between management and corporate governance parties

The board of directors of a listed company is charged with the responsibility of ensuring that designated "independent" directors meet the definition of "independence" as set forth by the SEC and the stock exchanges. In general, these rules provide broad guidelines in determining if a specific board member should or should not be considered independent. In defining "independence", Section 10C(a)(3) of the Securities Exchange Act of 1934 requires stock exchanges to consider all relevant factors including a director's source of compensation from the company and any other affiliation with the company or its affiliate/subsidiary that could impair the director's ability to act in an independent manner (SEC 2012). For instance, the director independence standards of Applied Industrial Technologies, a NYSE company, states: "For a director to be considered independent, the Board of Directors must determine that the director does not have a material relationship with Applied, either directly or as a partner, shareholder, or officer of an organization that has a relationship with Applied. In each case, the Board will broadly consider all relevant facts and circumstances, including the director's commercial, industrial, banking, consulting, legal, accounting, charitable, and familial relationships." (Applied Industrial Technologies 2013).

Further, with respect to directors who are considered "independent" by the board, there appears to be no specific regulation requiring companies to disclose social or professional ties between the board of directors and management. For instance, for a director who is otherwise considered "independent", a company's board is not obligated to disclose that the CEO of the company and a board member have a close personal/social relationship due to membership in the same country club.

As noted, prior research suggests that it is important to distinguish between the "substance" and "form" of the independence of board committees (Carcello et al. 2011a,b; Cohen et al. 2008). For example, some members may have ties with the CEO and, thus, will feel an allegiance to management. Such ties are potentially problematic as Carcello et al. (2011b) found that companies were more likely to have restatements when the CEO had influence over the nominations committee that selected audit committee members. On the other hand, some of the relationships between audit committee members and management may enhance financial reporting quality. For example, Cohen et al. (2014) find that audit committees that have members with specific industry expertise are associated with higher financial reporting quality. Thus, if management and an audit committee member serve on the same board within a similar industry in which the company resides, this relationship may enhance the expertise of the audit committee and consequently improve the overall ability of the audit committee to serve as effective monitors.as a result of their industry knowledge of accounting, internal controls, and business operations. While recent research (Chidambran et al. 2010; Dey and Liu 2011) has addressed the extent to which such professional or social networks influence board decision making, we are not aware of any research that examines how investor *knowledge* of ties that audit committee members have with management affects investor's judgments regarding the independence, competence, and consequently the effectiveness of the audit committee nor the effect on ultimate stock investment decisions.

As noted above, recent research has focused on how professional and social ties affect management's and board's decisions. For example, relying on managerial power theory, Hoitash (2011) reports that in companies in which compensation committees have social ties to management, management's compensation is higher than in cases where no social ties exist. This finding suggests that even in instances where regulation requires compliance with formal economic independence requirements, management may circumvent these regulations by choosing friends and colleagues on important committees of a board that result in rewarding management with compensation that may exceed what their performance warrants (Bebchuck and Fried 2004). Further, managerial power theory (Bebchuck and Fried 2004) suggests that managers will use their power to help place allies and friends on the board who will accede to management's wishes even though the board complies with all regulatory requirements concerning expertise and independence.

Thus, the potential exists that financial reporting quality may be compromised if the board, and especially the audit committee, is populated with friends who may be aligned with management's interests or with individuals with close professional contacts with management where the shared professional experience is not functional or applicable to the company with which they are associated. For example, Hwang and Kim (2009) find a positive association between the existence of social ties between the CEO and members of the audit committee and the level of earnings management. Specifically, they report that the greater the social ties between management and the audit committee, the greater the magnitude of abnormal accruals. To capture social ties, Hwang and Kim (2009) construct a social ties composite measure based on alma mater, military service, academic discipline and industry, regional origin and third party connections. Hwang and Kim (2009) argue that these shared experiences essentially limit the ability and willingness of a director to question management's decisions and actions.

Source Credibility Theory

In the psychology and the judgment and decision-making literatures, the perceived credibility of an information source has been found to be a major determinant of the effectiveness of a communication (McGarry and Hedrick 1974). Individuals use credibility as a source cue and as a cognitive heuristic to formulate judgments (Chaiken and Maheswaran 1994), to determine attitudes and attitude changes (Petty and Cacioppo 1986), and to make decisions (Birnbaum and Mellers 1983). The importance of credibility as a heuristic has been observed in psychology (see Hovland, Janis and Kelley 1953 and Anderson 1971 for seminal work) and in accounting with respect to auditors (see, for example, Hirst 1994; Reimers and Fennema 2000), financial analysts (Hirst, Koonce and Simko 1995) and investors (see for example, Mercer 2004; Hirst, Koonce, and Miller 1999; Mercer 2005).

In the generic judgment and decision-making setting, a judge evaluates an information source's credibility in order to facilitate judgment or decision formation. The judgment of a source's credibility may be broken down into three constructs: source bias, source expertise, and judge bias (Birnbaum and Stegner 1979). Since 2000, SEC rules (SEC 2000) have required that the audit committee include a report in its proxy statement indicating whether the committee has reviewed and discussed the audited financial reports with the management and the auditors of the company, and if the audit committee has received disclosures from the auditors with respect to their independence. The SEC rules also require that the report from the audit committee explicitly state if the committee has recommended to the board of directors that the audited financial statements be included in the company's Form 10-K filings with the SEC. These requirements emphasize the crucial role played by the audit committee in assuring investors that the financial information provided by management and audited by the company's independent accountants has passed scrutiny and oversight by the audit committee and hence can be relied upon by the stockholders and other stakeholders.

Given this important role of the audit committee, we expect that investors' perception of the effectiveness of the committee is an important component that feeds into their overall evaluation of the quality of financial reporting provided by the company. Hence, in our scenario, an investor's assessment of the effectiveness of the audit committee is posited to be related to the two components of source credibility discussed earlier which are perceived: (1) bias; and (2) expertise/competence.[2]

Independence

Professional and social ties between audit committee members and management may affect perceptions of source bias. Source bias, the inverse of independence, encompasses those factors that are perceived to influence the source such that a difference between a source's report and the true state of events may occur. Factors that affect source bias are the source's interests (Walster, Aronson and Abrahams 1966) and incentives (Birnbaum and Stegner 1979). We predict that *connections (social and professional)* will influence investors' judgments about audit committee independence. First, an audit committee that has members with close ties with

[2] Unlike other settings (e.g., political affiliation of the decision maker or judge), the investor's bias is less relevant in assessing the effectiveness of the audit committee, the context of the current study. One area where investor's bias may come in to play is if they are investing for social responsibility purposes (Simnett et al. 2009; Barnea et al. 2009). Accordingly, we do not manipulate investor bias or motive it in this study and its effects are randomized.

management may not engage in active questioning at meetings, an action that Gendron et al. (2004) state is an essential characteristic of an effective audit committee. Second, if management and audit committee members are connected through social and/or professional ties, management may have more power in negotiations with auditors over financial statement issues, since the audit committee may be more likely to side with management rather than the auditor if a dispute arises. In fact, Cohen et al. (2011) report that auditors are less willing to be as insistent in a financial reporting dispute when they believe the audit committee is under the influence of management than when the committee is substantively independent. Thus, investors may view the information that emanates from a firm with an audit committee that has ties with management to be less credible than if the audit committee were divorced from any ties with management. Consequently, all ties (social and professional) to management are likely to negatively influence investors' perceptions of audit committee "bias," leading to the following hypothesis.

H1a: Investors will assess audit committees with members who have no ties to the CEO to be more independent than audit committees with members who have either social or professional ties with the CEO.

Investors are, nonetheless, expected to distinguish between social and professional ties that audit committee members have with management when evaluating audit committee independence. Professional ties may offer potential benefits, since management and audit committee members may develop a business relationship, leading to trust and confidence and a good working rapport (Bruynseels and Cardinaels 2014; Beasley et al. 2009; Hoitash 2011). Unlike members with social ties, members with professional ties may have been chosen because they can also promote work-related information sharing that can benefit the operating and strategic performance of the firm (Bruynseels and Cardinaels 2014). Moreover, Bruynseels and

Cardinaels (2014) found no negative association between ties through an "advice network" and measures of financial reporting quality. Hence, audit committee members who have professional ties may be perceived by investors as being appointed because of their professional reputation and, thus, may not readily acquiesce to management to preserve this reputation and be able to objectively and effectively continue to serve on boards. On the other hand, social ties have the potential to negatively impact the perceived independence of an audit committee member, and social ties are more likely to induce closer bonding than professional ties (Westphal 1999; Cohen et al. 2008). Thus, investors are more likely to perceive audit committee members with social ties to management to be less independent than those who have ties that are professional in nature.[3] Our hypothesis regarding the impact of ties on investor independence judgments is as follows.

H1b: Investors will assess audit committees with members who have professional ties to the CEO to be more independent than audit committees with members who have social ties with the CEO.

Competence

Despite concerns that connections among board members may be deleterious because of the potential compromise of independence, the resource dependence perspective suggests that at times some professional ties may be beneficial for the firm in enhancing members' competence or knowledge. The resource dependence perspective states that connections among board members may allow the firm to gain greater access to resources and competitive knowledge (Boyd 1990). As Cohen et al. (2008 184) argue, "the inclusion of a significant number of non-independent directors may be appropriate for an R&D intensive firm that needs efficient access

[3] We recognize that in practice, professional ties over time can lead to social ties or vice-versa. In this study, we chose to make this orthogonal and in the discussion section we call for future research to examine the case where the two types of ties occur within the same audit committee.

to knowledge and resources that would allow management and other key constituencies to communicate and take decisive action in a quick and an effective manner."

As discussed previously, professional ties have the potential to enhance an audit committee member's knowledge of the responsibilities of serving on a board or the business in which the company operates. Industry knowledge can be beneficial to the member's ability to assess the quality of financial reporting (Cohen et al. 2014). For instance, the accuracy of accounting estimates such as warranties are dependent upon a strong knowledge of company's business operations (e.g., nature of warranty obligations, product portfolio, product quality, expected warranty costs). Therefore, we posit that audit committees with professional ties to the CEO will be viewed as more competent than when those ties do not exist.

H2: Investors will assess audit committees with members who have professional ties to the CEO to be more competent than audit committees with members where professional ties are absent.

Audit Committee Effectiveness

Source Credibility Theory predicts that both independence (lack of bias) and competence jointly influence the overall perceived credibility of a source such as an audit committee member. As expected, prior research has found that sources that are high on both independence and competence are perceived as more credible than those that are weak on either or both of these dimensions (Schulman and Worrall 1970; Warren 1969; Whittaker and Meade 1968). Prior studies have also examined the relative importance of independence (i.e., lack of bias or trustworthiness) and source competence/expertise in judges' evaluations of the overall credibility of the source (e.g., Weiner and Mowen 1986). Of particular importance in understanding the attributes that are likely to impact the perceived effectiveness of the audit committee are situations where the competency of the source is expected to be reasonably high such as the case of audit committee members. *De facto,* SEC regulations require that all members of the audit committee of public companies are financially literate, with at least one member designated as a financial expert, thus providing a “floor” with respect to the competence of the audit committee. Further, the unique, overriding monitoring role of the audit committee is also expected to lead shareholders to focus most heavily on independence. Thus, we expect that investors will focus on independence to a greater extent and hence will assess audit committees that are more likely to be biased in favor of the management (i.e., those with either professional or social ties to management) to be less effective compared with audit committees that have no ties to management. These expectations lead to the following hypothesis:

H3a: Investors will assess audit committees with members who have no ties to the CEO to be more effective than audit committees with members who have social or professional ties with the CEO.

H1b predicts that investors will assess audit committees with members who have professional ties to the CEO to be more independent than those with social ties. Further, H2 predicts that investors will assess audit committees with members who have professional ties to the CEO to be more competent than those without such ties. Thus, from a source credibility perspective, these predictions collectively would imply that audit committees with members who have professional ties will be assessed as more effective than audit committees with members who have social ties. Relatedly, Larcker, So and Wang (2013) report that firms with an interlocking board network enjoy superior stock returns. In their discussion, they indicate that such networks can help with (a) strategic information-such as sharing of industry trends and market conditions; (b) contracting- such as when a board member is connected with a company’s supplier they may help procure better terms; (c) shared contacts-such as political connections; and (d) best management practices. Thus, professional ties can be beneficial from a resource dependence perspective. For example, an audit committee member who sits on another board of a company in the same industry may understand management's rationale for valuing inventory because the member would have a good grasp of whether market trends necessitate a lower of cost or market write-down or not. Further, an archival study by Bruynseels and Cardinaels (2014) found that ties through "advice networks" do not appear to diminish financial reporting quality. Thus, from an investor perspective, enhanced source credibility and benefits emanating from a resource dependence perspective will collectively result in audit committees with professional ties to be assessed as more effective than those with social ties, as examined in the next hypothesis:

H3b: Investors will assess audit committees with members who have professional ties to the CEO to be more effective than audit committees with members who have social ties with the CEO.

Investment Decisions

Beyond investor assessments of independence, competence, and effectiveness of audit committees, it is important to understand if ties are of sufficient concern that they ultimately affect investment decisions. Similar to the impact of ties on audit committee effectiveness, overall we expect that ties with the CEO will negatively affect investors' investment decisions. Specifically, *ceteris paribus* we expect that investors will make more favorable investment decisions when audit committee members have no ties with the CEO than when there are either social or professional ties. Relatedly, Bruynseels and Cardinaels (2014) find that firms with audit committee members that have "friendship" ties with the CEO are associated with lower quality financial reporting (i.e., engage in more earnings management and purchase fewer audit services). Hence, we expect that investors will distinguish social ties from professional ties such that professional ties will be viewed more favorably with respect to investment decisions than social ties. Further, based on the findings of Bruynseels and Cardinaels (2014) on financial reporting quality, we expect that assessments of the effectiveness of monitoring provided by audit committees will affect the perceived credibility of financial reports and consequently investors' investment decisions. These expectations lead to the following hypotheses:

H4a: Investors will make more favorable investment decisions in companies where audit committee members have no ties to the CEO than where audit committee members have social or professional ties with the CEO.

H4b: Investors will make more favorable investment decisions in companies where audit committee members have professional ties to the CEO than where audit committee members have social ties with the CEO.

H5: Investors' assessments of audit committee effectiveness positively affect perceptions of the credibility of financial reports, and in turn, investment decisions.

Path Model and Mediation Analysis

In sum, our hypotheses, based on source credibility theory (Birnbaum and Stegner 1979), suggest that perceptions of audit committee independence and competence positively impact audit committee effectiveness, which in turn, affects credibility of financial reports and investors' investment decisions. These relationships are laid out in the path model in Figure 2. Prior literature (DeZoort, Hermanson, Archambeault, and Reed 2002) has documented the importance of independence and competence in determining the effectiveness of audit committees. Hence, we predict that independence and competence have a mediating effect on overall perceived audit committee effectiveness. As discussed in greater detail in the next section, we use a path model to consider the relationships among the exogenous and endogenous variables, and consistent with Denison (2009)'s approach, the model is also used to test for mediation effects detailed in the following hypotheses:

H6a: Investor perceptions of independence will mediate the assessed effectiveness of the audit committee.

H6b: Investor perceptions of competence will mediate the assessed effectiveness of the audit committee.

METHOD

Design

To test our hypothesis we use a 3 x 1 between-participants experiment. The three conditions reflect potential ties between audit committee members and the CEO and mimic those that have been documented in prior archival studies (no ties, social ties, and professional ties[4]). In all conditions, the audit committee is comprised of three members, with the committee complying with current regulatory requirements (i.e., all members are financially literate and do not have financial or business ties to the company, and one member is designated as a financial expert). To examine social and professional ties, in two of the three conditions we vary the affiliation of the CEO with two of the three audit committee members. Specifically, two members of the board are either socially connected to the CEO (SOCIAL TIES) or serve on the boards of two other companies that are in the same industry (PROF TIES). In the third condition, none of the audit committee members have either social or professional ties with the CEO (NO TIES).

Participants

Consistent with Elliott, Jackson, Peecher, and White (2014), we use participants with an accounting background to proxy for reasonably informed investors. Participants were 263 were attending an accounting-related continuing professional education (CPE) conference in the southeastern region of the United States. Given the nature of the conference, our participants had

[4] In this particular setting, the CEO and two of three audit committee members served on two boards within the same industry as the company to provide a setting in which the audit committee member has potentially gained valuable industry and business relevant knowledge.

extensive professional experience (94.7% reported having a professional certification, e.g., CPA, work experience averaging 16.2 year). Importantly, they also had significant personal investing experience (averaging 10.4 years). [5]

Procedure

We collected our data at the beginning of the second day of a two-day continuing professional education program. The focus of the program was on current issues in professional accounting and, thus, did not address the topic examined in this study. One of the researchers attended the conference and provided a short introduction requesting attendees voluntarily participate in a study that addressed an important accounting-related issue. Participants were then instructed to complete the instrument during the day and return it to the conference organizers. They were further cautioned to complete the instrument independently without consulting with others, since the focus of the study was to capture individual judgments. Conference attendees were also informed that a raffle would be conducted after the conclusion of the conference whereby the names of two participants would be randomly drawn to receive one of two iPad2s. Participants returned their completed packets in a sealed envelope to the conference organizers.

Participants' packets were placed at each seat prior to participants entering the conference room and included an instrument for one of the three conditions sorted in random order. The

[5] Results of pilot tests with MBA students showed qualitatively similar results with respect to the effect of ties on perceptions of independence and effectiveness. Revisions were made to the instrument based on the feedback from the pilot results, which enabled consideration of mediating variables as well as inclusion of the investment decision variable which was not examined in the pilot instrument. While prior studies on investment decisions have often used MBA students as participants (e.g., Barton & Mercer, 2005), Elliott, Hodge, Kennedy, and Pronk (2007) find that they may not be appropriate for tasks that involve high "integrative complexity," especially when asked to make decisions that involve integration of available information. Given the task demands of our study (i.e., the evaluation of audit committee effectiveness with potentially compensatory factors (competence and independence) and an investment decision), and consistent with Elliott et al. (2014), we use an experienced participant group with an accounting background to proxy for reasonably informed investors.

packet also included a brief statement that their involvement entailed completion of a case that required a hypothetical investment decision. Further, background information informed them that the industry the company operated in (financial services) was competitive and that, excluding the past recession, the company was able to maintain steady growth. In order to enhance the importance of industry knowledge, the background information also indicated this industry has specialized, unique accounting and regulatory requirements. Accordingly, we chose the financial services industry in which specialized knowledge would be pronounced. Participants were also told that the management team was stable in recent years, had a good reputation with its clients, and faced similar (incentive) pressures as others in the industry with compensation based on salary and performance metrics tied to earnings forecasts. Further, they were provided with current and prior year (unaudited) first quarter financial information which indicated a 17% increase in EPS from the prior year. Finally, they were told that the consensus analyst forecast for the quarter was $2.69 as compared to the reported quarterly earnings of $2.70. This scenario was intended to create an environment that suggested incentives for management to ensure earnings are sufficient to meet analysts' forecasts.

Depending on the condition, participants were provided with information about the three members of the company's audit committee, which varied according to the type of ties two members had with the company's CEO (see Figure 1 for a description of the audit committee member descriptions). Prior research has operationalized professional ties and social ties in a number of different ways (Chidambaran et al. 2010). One approach to reflect potentially beneficial professional ties is when the board member and the CEO have served on the boards of similar types of companies in the same industry (Westphal 1999; Chidambaran et al. 2010). Additionally, serving on boards in a similar industry can further enhance the business expertise of the audit committee member in fulfilling his or her role (Cohen et al. 2014). Thus, we operationalize professional ties if a board member and a CEO have shared board responsibilities at two companies in the same industry as the company in question.

Social ties have been captured in the prior literature as a situation in which the board member and a member of top management have been students at the same undergraduate institution, sit on the boards of the same non-profit, or belong to the same club (Cohen, Frazzini and Malloy 2008, 2009). Given that prior archival research focuses on the importance of a shared educational institution (Dey and Liu 2011), we chose to operationalize social ties as going to the same graduate university and remaining in contact as friends in the years since graduation. As Chidambaran et al. (2010 5) state, "the important component of educational ties, the one that matters the most, relate to cultural origins from belonging to similar institutions and sharing similar alumni networks".

Finally, the case indicated that the audit committee met all of the requirements of the SEC and the Sarbanes-Oxley Act. Thus, the audit committee was independent in "form".

Dependent Variables, Manipulation Checks, and Demographic Data

After reading the case facts, participants were asked to assess the extent to which the audit committee: (1) was "truly independent (unbiased) of the company's CEO in ensuring the accuracy of financial reporting, and (2) "had the requisite competence (i.e., sufficient ability and knowledge) to ensure accurate financial reporting." These measures were collected on 11-point scales where the endpoints were labeled "0 - Not At All Independent (No Competence)" and "10 – Extremely Independent (Very High Competence)". Participants were then asked to assess how effective the audit committee will be in ensuring the accuracy of financial reporting as well as the credibility of the financial reports. These measures were collected on 11-point scales whereby the endpoints were labeled "0 – Not At All Effective (No Credibility)" and "10 – Extremely Effective (Very High Credibility)". The final two questions in this section of the instrument asked the participants to indicate how likely it is that they would consider the company as a potential investment and how attractive the company is as an investment. Responses were collected on 11-point scales whereby the endpoints were labeled "0 – Not At All Likely (Attractive)" and "10 – Extremely Likely (Attractive)". Since these two measures reflect investment judgments and are highly correlated (Pearson correlation .0898, $p < 0.001$), we collapsed (summed) them into a single variable.[6]

Participants were then asked to place this portion of the instrument in an envelope provided and proceed to the final set of questions, where we gathered manipulation check and other demographic data related to work and investment experience.[7] In addition, participants completed a postcard with contact information in order to register for the iPad2 raffle; the postcard was separated from their responses on the instrument to preserve anonymity.

RESULTS

Manipulation Checks

Manipulation checks were conducted to ensure that participants understood the CEO and audit committee member ties as intended. Thus, participants were asked if they were told that the CEO had social ties with certain members of the audit committee and if they were told that the CEO had professional ties with certain members of the audit committee. We found that 98% of those in the no ties condition, 94% of those in the professional ties condition, and 93% of those in the social ties condition responded correctly, with no statistical difference in the

[6] Cronbach's alpha for the items is 0.940.
[7] Results of ANOVAs showed no significant differences for both participants' work experience (overall mean = 16.23 years, $p = 0.349$) as well as investment experience across conditions (overall mean = 10.38, $p = 0.134$). In addition, neither of these measures is significant when included as covariates in our models.

percentage of those who answered correctly across conditions ($F = 1.01$, $p = 0.366$). Since the results do not qualitatively change with those participants who failed the manipulation checks excluded from the analyses, all participants are included in our tests of hypotheses.

Test of Hypotheses

Panels A and B of Table 1 provide descriptive statistics and the results of a one-way MANOVA respectively, regarding the mean score for independence, competence, and effectiveness for each experimental condition. Overall, MANOVA results indicate that the effect of ties on participants' assessments of the dependent variables (independence, competence, and effectiveness) is statistically significant ($p<0.001$), after considering the potentially correlated nature of these assessments.

Our first set of hypotheses examines investors' assessments of whether the audit committee is viewed as truly independent from the CEO. Specifically, H1a predicts that investors will perceive audit committees with members who have no ties to the CEO (NO TIES) to be more independent than audit committees with members who have either social or professional ties with the CEO (SOCIAL OR PROF TIES). Thus, we compare the mean independence score for the NO TIES condition (mean = 7.91) to the average mean score across the other two conditions (mean = 4.62, untabulated). Panel C of Table 1 shows the results of the independent t-test, which provide strong support for H1a ($t = 12.59$, $p < 0.001$).

H1b predicts that investors will perceive audit committees with members who have professional ties to be more independent than audit committees with members who have social ties. To test H1b, we conduct a t-test comparing the mean independence score for the SOC TIES condition (mean = 4.08) to the mean score for the PROF TIES condition (mean = 5.24). As reported in Panel C, the results provide strong support for H1b ($t = 3.23$, $p = 0.001$).

Our second hypothesis examines investors' assessments of the competence of the audit committee. H2 compares the competence scores of audit committees with members who have professional ties (PROF TIES) to the other conditions. Specifically, we expect and find that the competence score of PROF TIES (mean = 7.71) to be greater than that of other conditions (mean = 6.50, untabulated). As reported in Panel C, we find strong support for H2 ($t = 4.99$, $p < 0.001$).

Our third set of hypotheses makes predictions about investors' assessments of the overall effectiveness of the audit committee in monitoring the accuracy of financial reporting. H3a predicts that investors will perceive audit committees with members who no ties with the CEO (NO TIES) to be more effective than audit committees with members who have social (SOC TIES) or professional ties (PROF TIES). Thus, we compare the mean effectiveness score for the NO TIES condition (6.75) to the average mean score across the other two conditions (mean = 5.84, untabulated). Panel C of Table 1 shows the results of the independent t-test and provide strong support for H3a ($t = 3.03$, $p = 0.002$).

H3b examines whether investors perceive audit committees with members who have professional ties (PROF TIES) to be more effective than audit committees with members who have social ties (SOC TIES). As reported in Panel C, we find the mean effectiveness score for those in the PROF TIES condition (mean = 6.70) to be greater than the effectiveness score of those in the SOC TIES condition (mean = 5.10), and this difference is statistically significant ($t = 4.89$, $p < 0.001$).

Our fourth set of hypotheses makes predictions about investors' investment decisions and Panels A and B of Table 2 provide descriptive statistics and the results of a one-way ANOVA, respectively, regarding the mean score for our investment decision variable. H4a predicts that investors will make more favorable investment decisions in companies where audit committee members have no ties to the CEO (NO TIES) than where audit committee members have social (SOC TIES) or professional ties (PROF TIES). Thus, we compare the mean investment decision score for the NO TIES condition (12.13) to the average mean score across the other two conditions (mean = 10.16, untabulated). Panel C of Table 2 shows the results of the independent t-test and indicate strong support for H4a ($t = 3.54$, $p < 0.001$).

H4b predicts that investors will make more favorable investment decisions in companies where audit committee members have professional ties to the CEO (PROF TIES) than where audit committee members have social ties (SOC TIES) with the CEO. As reported in Panel C, we find the mean investment decision score for those in the PROF TIES condition (mean = 11.33) to be greater than the investment decision score of those in the SOC TIES condition (mean = 9.16), and this difference is significant ($t = 3.17$, $p = 0.001$). Hence, H4b is strongly supported.

Further we examine the relationship between audit committee effectiveness, financial reporting credibility, and investment decisions. H5 predicts that perceptions of effectiveness of the AC will influence the credibility of the financial statements which in turn will influence the investment decision. To examine these relationships, we regress audit committee effectiveness on financial reporting credibility, and we regress financial reporting credibility on the investment decision variable. Reported in Panel D of Table 2, results indicate that audit committee effectiveness significantly affects assessments of financial reporting credibility (p-value < 0.001) and financial reporting credibility in turn affects investment decisions (p-value < 0.001). Collectively, these provide strong support for H5.

Mediation Analysis and Path Model

In H6a and H6b, we predict that investor perceptions of independence and competence, respectively, will mediate the perceived effectiveness of the audit committee. Consistent with Denison (2009), we depict the mediation expectations using a path model (Figure 2). To test the predictions in H6a and H6b, we follow the Hayes (2013) approach for multiple mediator models.[8] The effects (coefficients and p-values) are presented in Figure 2.

Panel A of Figure 2 reports the path and mediation tests for a model that includes all three experimental conditions (NO TIES, PROF TIES, and SOC TIES). We find a significant effect of ties on audit committee effectiveness ($p < 0.003$), ties on independence ($p < 0.001$) and ties on competence ($p = 0.004$). Thus, we have met the first two conditions for establishing mediation for independence and competence. We continue by examining the effects of independence and competence, individually, on audit committee effectiveness. As reported in Panel A of Figure 2, both independence ($p < 0.001$) and competence ($p < 0.001$) significantly affect perceptions of audit committee effectiveness. To complete the test for mediation, we examine the full model wherein ties is the independent variable, independence and competence are mediating variables, and effectiveness is the dependent variable. We find that independence and competence remain significant ($p < 0.001$ for each, untabulated), however, ties is no longer significant ($p = 0.132$). Our bootstrap mediation analysis indicates that independence and competence mediate the relationship between ties and audit committee effectiveness.[9]

[8] The Hayes (2013) approach examines the direct and indirect effects of multiple mediators using bootstrap mediation analysis. Our analyses used a 95% confidence interval and 1,000 bootstraps. The tests provide coefficients, t-tests, and related p-values of coefficients. In addition, the bootstrapping method provides confidence intervals for the coefficients. Significance in the confidence intervals is determined by the exclusion of zero in the interval. We use both t-tests and confidence intervals to determine significance; however, for brevity we only report the coefficients on the mediators in Figure 2. To conduct the Hayes (2013) tests, we use the PROCESS syntax for SPSS (available for download at http://www.afhayes.com/introduction-to-mediation-moderation-and-conditional-process-analysis.html).

[9]We conduct robustness tests of the mediation analysis by individually analyzing all of the possible pairs of ties conditions (i.e., including only the No Ties and Professional Ties data, only No Ties and Social Ties data, and only

An advantage of the Hayes (2013) approach is the ability to examine indirect as well as direct effects in mediation through bootstrapping. In sum, these analysis shows that when both mediators are included in the models (Panels A and B), the direct effect of ties on effectiveness is not significant and the indirect effects of both mediators are significant. Thus, H6a and H6b are supported.

In Figure 2, Panel B, we report the full path model, which includes the financial reporting credibility and investment decision variables. As indicated in the diagram, the links between audit committee effectiveness, financial reporting credibility, and investment decision are significant ($p < 0.001$), as are all paths in the model ($p < 0.001$, untabulated). We also note that this model has goodness of fit measures of which are considered "desirable" (Byrne 2010) (Comparative Fit Index—88.2%, Incremental Fit Index-88.4%, Tucker-Lewis index—69.1%).

DISCUSSION AND CONCLUSIONS

Relying on source credibility theory and employing an experimental approach with 263 reasonably informed investors, we investigate how knowledge of professional and social ties between audit committee members and the CEO affects investors' assessments of the independence, competence, and overall effectiveness of the audit committee in overseeing financial reporting as well as the participants' investment decisions.. The advantage of an experimental approach is that we can explicitly control the nature of ties, since regulatory disclosures (e.g., proxy statements) and other publicly available data (e.g., BoardEx) used in archival studies may be incomplete in capturing certain types of ties (e.g., friendships or memberships in private clubs and social circles) that may be important information for investors. The results indicate that participants who were informed that there were no professional or social

Social Ties and No Ties data). In each of these analyses, we find that independence and competence mediate the relationship between ties and audit committee effectiveness.

ties between the CEO and the audit committee (no ties) viewed the audit committee as more independent than in all other conditions. Further, audit committee members with professional ties were viewed as more independent than those with social ties. We also find that audit committee members with professional ties to be perceived as more competent than those with no ties and those with social ties. Moreover, we find that audit committees with no ties were viewed as more effective than other conditions while those committees with professional ties were viewed as more effective than those with social ties. The latter result is due to the greater perceived independence of audit committee members with professional ties than with social ties. Further, we find that investors make more favorable investment decisions when there are no ties than when there are either professional or social ties, and that professional ties are viewed more favorably than social ties when making investment decisions. Finally, the results of a mediation analysis indicate that both independence and competence mediate investors' assessments of audit committee effectiveness, consistent with predictions from Source Credibility Theory.

It is useful to consider our results in the context of prior studies. An interview study conducted by Beasley et al. (2009) shows that while audit committee members are economically independent, they often have social and/or professional ties with management, raising concerns about "substantive" independence. These concerns are substantiated by archival evidence that some ties, in particular social ties, negatively affect financial reporting quality (Carcello et al. 2011b; Bruynseels and Cardinaels 2014) and the monitoring of the audit function (Bruynseels and Cardinaels 2014). The results of studies by Hwang and Kim (2009) and Hoitash (2011) indicate similar dysfunctional effects of ties for the compensation committee in determining executive compensation. Our study is designed to complement prior archival work, especially Bruynseels and Cardinaels (2014), in that they looked at the association between ties and financial reporting quality. In particular, we use a controlled experimental approach to examine how knowledge of these ties affects investor's decision making. Further, our results complement archival findings in that we find investors assess the lowest level of audit committee independence and effectiveness when there are social ties with the CEO as compared to when there are professional ties or no ties. It is noteworthy that investors distinguish between social and professional ties, suggesting the two types of relationships are interpreted as having different underlying motives and effects. In our experiment we depict professional ties as a situation where audit committee members have served with the CEO on prior boards within the same industry, thus, indicating audit committee members' possess knowledge of the industry that may potentially be important in monitoring financial reporting. Finally, our participants viewed no ties as achieving the highest level of audit committee effectiveness.

The results of our study have implications for public policy and future research. The study suggests that the SEC may wish to consider requiring or at least strongly encouraging companies to provide disclosures regarding social connections (or lack thereof) between management and audit committee members. The cost of providing such information appears relatively low, compared with the potential benefits that such information can provide to investors. Increased disclosures about ties will provide greater transparency for investors to assess whether the audit committee has the willingness along with the ability to effectively monitor the financial reporting process as is the intention of current regulation. From a research perspective, our use of an experimental method allows us the advantage to complement the voluminous archival research in corporate governance by directly controlling extraneous variables such as the specific nature of any ties to directly assess the importance of various ties to potential investors. Future research could use this approach to examine the effects of various ties on other committees such as the nominating and compensation committees that are outwardly independent but may lack the willingness to effectively monitor management.

As in all studies, limitations exist that also represent opportunities for future research. First, in our study, we examined different types of ties as being independent of each other. In practice, professional ties could lead to social ties and vice-versa. A future study could evaluate how having both types of ties affects investors' evaluation of overall effectiveness of the audit committee. Further, there are a number of ways to represent social (military service versus educational background) and professional ties (prior board service in the same industry versus in different industries). Future research is needed to determine if various types of associations affect investor judgments differentially.

Finally, we provided the information about ties to investors. A future study could examine the extent to which investors choose to obtain information on social and professional ties between audit committee members and management and how they weigh that information when making judgments and decisions. This study provides initial evidence on how knowledge of social and professional ties affects investors' assessments of the audit committee's ability to monitor the financial reporting process and their investment decisions. We highlight the complex and diverse nature of potential ties between management and corporate governance parties such as the audit committee. The findings here demonstrate that the disclosure of audit committee ties has a pronounced impact on investor judgments, indicating this is an important public policy and research issue.

Table 1
Tests of Hypotheses 1 through 3 – Independence, Competence, and Effectiveness

Panel A: Mean (Standard Deviation) of Independence, Competence, and Effectiveness Scores [a]

	NO TIES	PROF TIES	SOC TIES	Overall
Sample Size	n = 81	n = 84	n = 98	n = 263
Independence	7.91 (1.67)	5.24 (2.32)	4.08 (2.52)	5.63 (2.73)
Competence	6.98 (1.92)	7.71 (1.52)	6.13 (2.44)	6.90 (2.12)
Effectiveness	6.75 (2.06)	6.70 (2.06)	5.10 (2.35)	6.12 (2.31)

Panel B: Results of MANOVA with Independence, Competence, and Effectiveness as the Dependent Variables

Source	**DV**	**df**	**SS**	**MS**	**F-statistic**	**p-value**
	Independence	1	8,619.68	8,619.68	1,744.09	0.001
Intercept	Competence	1	12,583.71	12,583.71	3,085.50	0.001
	Effective	1	9,995.24	9,995.24	2,113.50	0.001
	Independence	2	670.24	335.12	67.81	0.001
Ties	Competence	2	113.86	56.93	13.96	0.001
	Effective	2	162.51	81.25	17.18	0.001
	Independence	260	1,284.98	4.94		
Error	Competence	260	1,060.37	4.08		
	Effective	260	1,229.60	4.73		

Panel C: Planned Contrasts

	Planned Comparison	**Weights**	**t-test**	**p-value[b]**
H1a – Independence	NO TIES > SOC TIES or PROF TIES	+2, -1, -1	12.591	0.001
H1b - Independence	PROF TIES > SOC TIES	0, +1, -1	3.225	0.001
H2 – Competence	PROF TIES > ALL CONDITIONS	-1, +2, -1	4.998	0.001
H3a – Effectiveness	NO TIES > SOC TIES or PROF TIES	+2, -1, -1	3.025	0.002
H3b – Effectiveness	PROF TIES > SOC TIES	0, +1, -1	4.888	0.001

[a] Independence (Competence) response is on an 11-point scale with endpoints labeled "0 – Not at All Independent (No Competence)" and "10 – Extremely Independent (Very High Competence)." Effectiveness response is on an 11-point scale with endpoints labeled "0 – Not at All Effective" and "10 – Extremely Effective."
[b] One-tailed.

Table 2

Tests of Hypotheses 4 and 5 – Financial Reporting Credibility and Investment Decisions

Panel A: Mean (Standard Deviation) of Financial Reporting Credibility Scores and Investment Decision[a]

	NO TIES	PROF TIES	SOC TIES	Overall
Sample Size	n = 81	n = 84	n = 98	n = 263
Financial Report Credibility	6.91 (1.84)	6.48 (1.95)	5.43 (2.16)	6.22 (2.09)
Investment Decision	12.13 (3.61)	11.33 (4.30)	9.16 (4.95)	10.76 (4.53)

Panel B: Results of ANOVA with Investment Decision as the Dependent Variable

Source	**Df**	**SS**	**MS**	**F-statistic**	**p-value**
Between Groups	2	426.52	213.26	11.18	0.001
Within Groups	259	4,938.80	19.067		
Total	261	5,365.33			

Panel C: Planned Contrasts

	Planned Comparison	**Weights**	**t-test**	**p-value[b]**
H4a – Investment Decision	NO TIES > SOC TIES or PROF TIES	+2, -1, -1	3.543	0.001
H4b – Investment Decision	PROF TIES > SOC TIES	0, +1, -1	3.166	0.001

Panel D: Results of Regression of (1) Effectiveness on Financial Reporting Credibility and (2) Financial Reporting Credibility on Investment Decision

	Coefficient	**F-test**	**p-value[b]**
H5 – Effectiveness on Credibility	0.738	17.666	0.001
H5 – Credibility on Investment Decision	0.664	14.310	0.001

[a] Investment Decision is the sum of two variables: Investment Likelihood and Investment Attractiveness. Responses are on 11-point scales whereby the endpoints were labeled "0 – Not At All Likely (Attractive)" and "10 – Extremely Likely (Attractive)".
[b] One-tailed.

Figure 1 – Description of Audit Committee Members by Condition

<table>
<tr><th colspan="3">Description of Audit Committee (Constant Across Conditions)</th></tr>
<tr><td colspan="3">The Board of Directors of T.P.Reynolds consists of 12 individuals with the majority of directors considered independent in accordance with current regulations. The CEO is also the chair of the board.

Consistent with the requirements of the SEC and the Sarbanes-Oxley Act, the audit committee at T.P. Reynolds meets regularly, with all members financially literate (i.e., able to understand financial reports), none having financial or business ties to the company, and one member designated as a “financial expert.” The Audit Committee (AC) has adopted a formal, written charter that is similar to other firms in the industry. According to the AC charter, members are appointed to the audit committee by the board based on the recommendation of the nominations committee.

The Audit Committee currently consists of three members:

• [See changes based on condition to the description of the two of three members.]

• The third member of the audit committee has no current or prior social or professional ties to the CEO.</td></tr>
<tr><th>No Social or Professional Ties Condition</th><th>Professional Ties Condition</th><th>Social Ties Condition</th></tr>
<tr><td>• The members of the audit committee have no professional ties with the CEO as they have not worked together nor have they served on any board together.

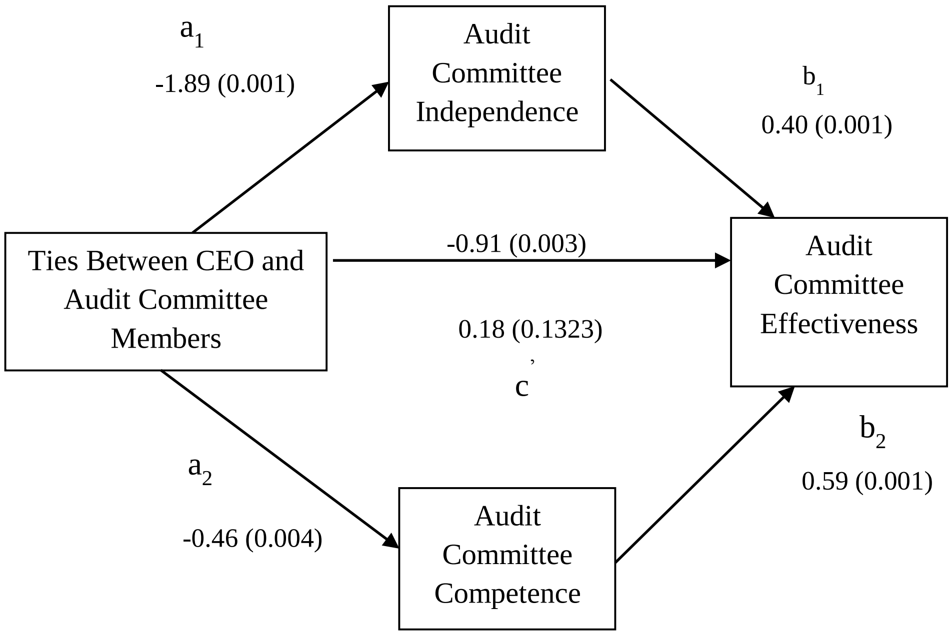
• In addition, audit committee members do not have any social ties with the CEO. For instance, they have not been classmates who graduated together from a university and stayed in contact on a regular basis over many years</td><td>• The audit committee chair and another member of the audit committee serve on the boards of two other companies that are in the same industry (i.e., in the financial services industry). Chris Perkins, the CEO of LGFS, also serves on the boards of these companies and in that capacity has known these two audit committee members for over 15 years.

• Although they served on the same boards in the same industry, the two members have no social ties with Chris Perkins as they have not, for instance, been classmates who graduated together from a university and stayed in contact on a regular basis over many years.</td><td>• The audit committee chair and another member of the committee were classmates in graduate school with Chris Perkins, the CEO of LGFS, at a well-regarded university and have stayed in social contact with each other on a regular basis since graduation over 15 years ago.

• These two audit committee members have no professional ties with the CEO of LGFS, as they have not worked together nor have they served together on other boards.</td></tr>
</table>

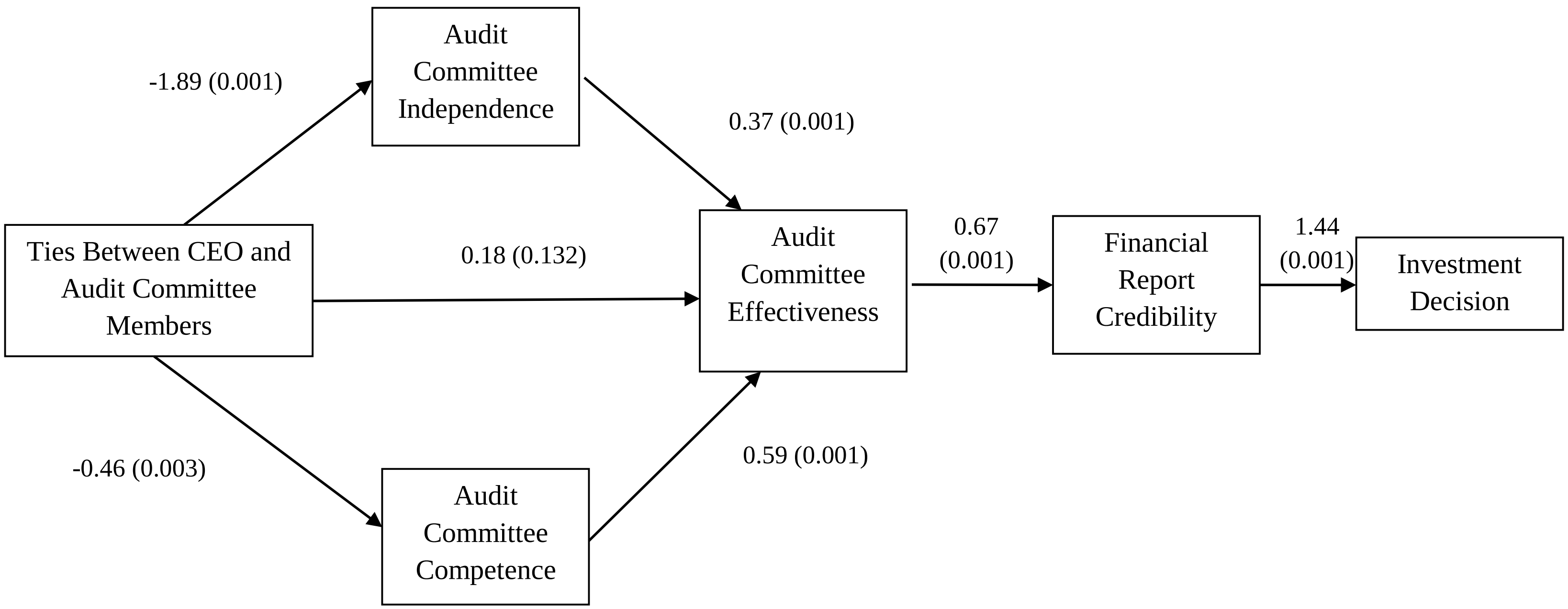
Figure 2: Mediation Analysis and Path Model

Panel A: Mediation Analysis – Coefficients (p-values) n=263



This figure shows the empirical results of mediation tests on H6a and H6b using the Hayes (2013) method and the PROCESS syntax for SPSS. We used a 95% confidence interval and calculated the coefficients with 1,000 bootstraps.

Panel B: Path Analysis – Coefficients (p-values) n=263



This figure shows the empirical results of a path analysis that simultaneously tests our manipulated and measured variables. For each link, the standardized estimate (p-value) are shown. Overall goodness of fit measures include the Comparative Fit Index (88.2%), the Incremental Fit Index (88.4%) and the Tucker-Lewis index (69.1%).

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