The Impact of Ethical Leadership, the Internal Audit Function, and Moral Intensity on a Financial Reporting Decision

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Abstract Two elements of corporate governance—the strength of ethical executive leadership and the internal audit function (IAF hereafter)-provide guidance to accounting managers making decisions involving uncertainty. We examine the joint effect of these two factors, manipulated at two levels (strong, weak), in an experiment in which accounting professionals decide whether to book a questionable journal entry (i.e., a journal entry for which a reasonable business case can be made but there is no supporting documentation). We find that ethical leadership and the IAF interact to determine the likelihood that accountants book the entry. Specifically, accountants are less likely to book a questionable journal entry when there is a weak ethical leader and a strong IAF compared to all other conditions. In addition, we find that accountants question the appropriateness and ethicalness of the request to book an undocumented journal entry more in the weak ethical leader and strong IAF condition than in the other conditions. These results suggest that the IAF has a different impact on financial reporting decisions depending on the ethicalness of executive leadership and that a strong

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IAF may cause accountants to question the appropriateness and ethicalness of an undocumented journal entry when combined with weak ethical leadership. We also find that the interactive effect of ethical leadership and the IAF on an accountant's decision is fully mediated by his/her perception of the moral intensity of the issue. Thus, accountants, who perceive greater moral intensity associated with booking the entry, are less willing to do so.

Keywords Ethics in accounting · Moral intensity · Ethical leadership · Moral action · Internal audit function · Financial reporting

Introduction

Many accounting decisions involve uncertainty and tradeoffs between potentially correct alternatives. For example, some managers may be more conservative when estimating revenue under generally accepted accounting principles (GAAP) using the percentage of completion method, while others may be less conservative. When presented with such decisions, accounting managers will often seek guidance. At times, guidance may come from organizational factors such as executive management or the internal audit function (IAF). These two internal organizational factors along with two external organizational factors (i.e., external auditors and the audit committee) comprise the four cornerstones of corporate governance that help ensure effective internal control and reliable financial reporting (Institute of Internal Auditors (IIA) 2005). Executive management sets the overall "tone at the top" for the organization and acts as a role model for employees to emulate. For instance, if accountants are presented with a decision to record a questionable journal entry (i.e., an entry for which a

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reasonable business case can be made for either booking it or not booking it), they may emulate executive management's behavior, especially if such behavior is the social norm and has been rewarded in the past (Mayer et al. 2009). In addition, a high quality IAF can provide guidance for decision makers by monitoring internal control and management's actions. For instance, accountants may hesitate to record a questionable journal entry if they know that internal audit is likely to detect inappropriate financial reporting practices (Prawitt et al. 2009).

In this article, we examine how the strength of executive ethical leadership and the IAF jointly influence accounting managers' decision to book a questionable journal entry (i.e., a journal entry for which a reasonable business case be made that it is needed but for which there is no supporting documentation). In this study, ethical leadership is defined as the type of actions an executive takes to encourage or discourage an ethical work environment (Brown et al. 2005) as opposed to an assessment of the executive's own ethical decision-making process. Following Brown et al. (2005), ethical leadership is manipulated in terms of integrity and ethical standards (i.e., high vs. low), treatment of employees (i.e., fair vs. not fair), and holding employees accountable for ethical conduct (i.e., held accountable vs. not held accountable). Consistent with prior research (Gramling et al. 2004), IAF quality is conceptualized as a multidimensional construct and is manipulated in three ways with strong versus weak conditions indicated, respectively, to whom the IAF reports (i.e., audit committee vs. chief financial officer); the primary role of the IAF within the company (i.e., assurance vs. consulting); and the work product produced (i.e., history of finding vs. missing deficiencies). Experienced accountants participated in an experiment in which the quality of the chief financial officer's ethical leadership and that of the IAF are both manipulated at two levels (strong, weak). Participants assigned to the role of assistant-controller indicated the likelihood that they would book a journal entry when requested to do so by their immediate manager (i.e., the controller) and assessed the moral intensity of this decision.

Our results indicate that ethical leadership and the IAF jointly influence accountants' decisions. Specifically, accountants are least likely to book a questionable journal entry when there is a weak ethical leader and a strong IAF compared to all other conditions (i.e., when there was a strong IAF and a strong ethical leader or when there was a weak IAF and a weak or strong ethical leader). These results suggest that the influence of ethical leadership is more pronounced when there is a strong compared to a weak IAF and that a strong IAF may actually decrease the likelihood of booking an undocumented journal entry when combined with weak ethical leadership. In addition, we find that accountants question the appropriateness and ethicalness of the undocumented journal entry more in the weak ethical leader and strong IAF condition than in the other conditions. It may be that, in the other conditions, the strong ethical leader-strong IAF condition and the weak IAF condition create, respectively, a trusting environment and an environment in which participants are less concerned about being monitored. This is consistent with accountants, in these conditions, viewing a request to book an undocumented entry as less inappropriate and less unethical compared to those in the strong IAF and weak ethical leadership condition. In this way, accountants in these other conditions are more willing to ignore an internal control compliance violation and book the questionable journal entry.

In addition, we find that the joint influence of ethical leadership and internal audit quality on accountants' willingness to book a questionable accrual entry is fully mediated by participants' perception of the moral intensity of the issue. Specifically, a strong IAF and weak ethical leadership combine to alter accountants' perception of the moral intensity of the issue. As a result, accounting professionals who perceive greater moral intensity associated with the controller's request are less willing to book the questionable journal entry. Apparently, when participants perceive the request by the controller to be more morally questionable, they are less likely to go along with it.

This study contributes to the literature in at least three ways. First, we provide evidence of the joint influence of ethical leadership and internal audit quality on accounting decisions. Prior research has considered the influence of these organizational factors independently (e.g., Merchant and Rockness 1994; Douglas et al. 2001; Prawitt et al. 2009) but no study has examined their joint influence on accounting decisions. Our results suggest that consideration of either factor independent of the other may be potentially misleading. Second, unlike the ethical scenarios typically employed by prior accounting research (e.g., Merchant and Rockness 1994; Gillette and Uddin 2005; Maroney and McDevitt 2008), we utilize a neutral ethical dilemma to examine the influence of two organizational factors-the IAF and ethical leadership-on a financial reporting decision. Ethically ambiguous or neutral decisions pervade financial reporting settings where professional judgment is required for many reporting decisions (Likierman 1989; Bandy et al. 1993). Our neutral ethical decision is representative of these types of judgments and allows us to examine the joint effect of the IAF and ethical leadership without imposing a normatively "right" or "wrong" answer on the professional judgment setting.

Third, we extend the ethical decision-making model research (Jones 1991) by identifying moral intensity as the underlying factor driving the joint influence of ethical leadership and internal audit quality on financial reporting decisions. While prior research has examined the role of moral intensity on the ethical decision-making process in accounting (e.g., Wright et al. 1997; Leitsch 2004; Taylor and Curtis 2010), it has not identified mediators of this influence. Our results suggest that ethical leadership and internal audit quality significantly influence the participants' perceptions of moral intensity, thereby affecting their accounting decisions.

The rest of this article is organized as follows. The next section reviews relevant literature and presents our hypotheses. In the subsequent sections, we describe our research method and present our results. We conclude by discussing the implications and limitations of our research and offering suggestions for future research.

Literature Review and Hypotheses Development

Ethical decisions are not made in isolation and situational factors such as job context, organizational culture, and characteristics of the work itself have been shown to impact the ethical decision-making process (Trevino 1986). Two organizational factors-executive management and the IAF-are important components of corporate governance, the purpose of which is to support strong internal control (Committee of the Sponsoring Organizations of the Treadway Commission (COSO) 1992) and reliable financial reporting (Institute of Internal Auditors (IIA) 2005). While prior research has studied the ethical reasoning process in an accounting context,¹ only a small subset of that research considers the influence of either ethical leadership or the IAF, and we are not aware of any research that has examined the joint effect of both factors on ethical reasoning. In the subsequent sections, we review the prior research on these issues.

Ethical Leadership

Through actions and policies, executives create a tone at the top that shapes the ethical culture and climate within an organization (e.g., Sweeney et al. 2010; Victor and Cullen 1988; Trevino et al. 1998) and significantly influences financial reporting decisions (D'Aquila 1998). In a review of the financial reporting system, The Treadway Commission (1987, p. 32) found that the "tone set by top management—the corporate environment or culture within which the financial reporting occurs—is the most important factor contributing to the integrity of the financial reporting process." Research results seem to support the findings of the Treadway Commission. In a survey of CPAs, D'Aquila (1998) concludes that a tone at the top of an organization that fosters ethical decisions has a significant impact on financial reporting decisions. Research on management accountants shows that corporations with top managers who are concerned with ethical values are less likely to pressure employees to materially alter financial results (Lamberton et al. 2005). Merchant and Rockness (1994) survey accounting managers and find that managers from a company with weak ethical leadership (i.e., a major fraud incident had just occurred) rated earnings management scenarios differently than managers from an organization with stronger ethical leadership. The influence of the tone at the top can also be found in accounting firms. For example, research shows that the ethical culture of the firm influences the judgments of auditors regarding independence and confidentiality issues (Douglas et al. 2001) and premature sign-offs on the workpapers and time underreporting (Sweeney et al. 2010).

Social learning theory suggests that setting the tone at the top will inspire individuals within the organization to emulate the behavior of attractive role models like ethical leaders (Bandura 1977, 1986). Utilizing social learning theory, research suggests that ethical leadership tricklesdown from the top level of management, to immediate supervisors, and ultimately to employees (Mayer et al. 2009). For the financial reporting process, this trickle down impact is important because it means that by setting the tone at the top, ethical leaders can influence the reporting behavior of not only management but also of those employees making the day-to-day decisions and journal entries like assistant-controllers or accountants.

Internal Audit Function

One role of IAF is to evaluate and monitor the effectiveness and efficiency of a company's internal control system (IIA 2010; Kaplan and Schultz 2007). Through this monitoring role, the IAF helps a company achieve its objective of reliable financial reporting by scrutinizing the actions of management and acting as a deterrent to aggressive financial reporting (Prawitt et al. 2009). The IAF also provides assurance on the effectiveness of internal control (i.e., ensuring all transactions are supported by proper documentation) through its periodic evaluation and test of controls and day-to-day oversight of management activities.

There has been limited research on the association between the IAF and decisions made in the financial reporting process. Schneider and Wilner (1990) determine that the presence of an IAF is a deterrent to financial reporting irregularity in the case of an unambiguous potential GAAP violation (i.e. a material write down of inventory to the lower of cost or market value). Asare et al.

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¹ For a review of the ethical reasoning process in an auditing context, see Jones et al. (2003). Examples of research on the ethical reasoning process in a financial reporting context include Carpenter and Reimers (2005), Gillette and Uddin (2005), Graham et al. (2005), and Belski et al. (2008).

(2008) found that internal auditors are sensitive to, and adjust their audit plans in response to, changes in management performance incentives which can influence management's reporting intentions. However, Davidson et al. (2005) suggest that the voluntary establishment of an IAF did not lead to a significant reduction in the level of discretionary accruals. Thus, while the findings from Asare et al. (2008) suggest the IAF can influence the financial reporting process in unambiguous situations, Davidson et al. (2005) suggest that internal audit does not necessarily improve performance measured by discretionary accruals. Prawitt et al. (2009) shed light on this apparent contradiction by showing that IAF quality, and not just the presence of an IAF, is associated with a moderation in the level of earnings management and, therefore, plays an important role in the financial reporting process.

Hypotheses Development

Expanding on the prior research, we investigate how the combination of IAF quality and ethical leadership work together to create an environment that can influence an accountant faced with a decision to book a questionable journal entry. Since the strength of the IAF and ethical leadership are integral components of internal control, we are interested in examining how these two factors combine to influence an accounting decision.

Ethical dilemmas are common for lower level employees in a business (Hodge et al. 1998) as those employees are frequently asked to follow the instructions of their superiors. Highly publicized corporate failures such as Enron and HealthSouth involved lower-levels employees booking questionable journal entries at the request of their superiors (e.g., McLean and Elkind 2003; Beam and Warner 2009). In the HealthSouth case in particular, a combination of questionable ethical leadership and an ineffective IAF appears to have contributed to employees' reluctance to question management's financial reporting decisions. Specifically, recorded testimony by a Health-South employee indicated the "tone at the top" sent a clear message to not question management on financial reporting decisions (Rittenberg et al. 2010), and HealthSouth's IAF was too weak to be effective (Beam and Smith 2010).

Given the importance of lower level employees in business decision making, we focus on the influence of the IAF and ethical leadership on the decision making of a mid-level accountant, an assistant-controller, who is asked by the controller to record a questionable journal entry. The journal entry request is questionable or ethically charged in that a reasonable business case can be made for the entry but there is no supporting documentation for it. Utilizing the discretion allowed within GAAP, the assistant-controller may be able to legitimately justify that an entry is needed in order to ensure that the financial statements represent the economic substance of the business activity for the accounting period. However, s/he may be hesitant to book a journal entry because of the lack of documentation to support the journal entry which is typically required by internal control procedures. The ambiguity in our ethical decision allows us to investigate how the combination of internal control components (i.e., ethical leadership and IAF) work together to influence the financial reporting decision process of midlevel accountants without imposing a normatively "right" or "wrong" answer on the decision context.

We propose that the strength, or quality, of the IAF will alter mid-level accountants' decision process depending on the strength of the ethical leadership in an organization. In order to understand why this might happen, consider the role of the IAF in an organization in supporting and promoting internal control process and financial statement accuracy. The IAF serves as an independent party to help ensure that internal control over financial reporting and the corporate governance process are effective in ultimately producing accurate financial results. If an employee is aware of the strength of the IAF, then a superior's request to book a questionable journal entry may be interpreted by the subordinate differently, depending on whether executive management's ethicalness is perceived to be weak or strong.

In the case of a strong IAF, weak ethical leadership may heighten mid-level employees concern that the request to book a questionable entry is not appropriate. A strong IAF may trigger an increased focus on the monitoring aspect of internal control procedures, which typically indicate that booking journal entries requires appropriate supporting documentation. When a strong IAF is presented in conjunction with weak ethical leadership, the accountant may be more likely to question management's motive for the entry and, in turn, be less likely to follow a superior's instruction to book a questionable entry. However, when there is a strong IAF and strong ethical leadership, mid-level employees may feel that the request to book a questionable entry is acceptable because the leader is trustworthy and there is a strong monitor of their actions. In this case, accountants operating in the strong IAF and strong ethical leadership environment should be more willing to follow the request of the controller to book the entry because of the strong ethical environment created. With a weak IAF, on the other hand, there is no effective monitor of the actions of management. In this situation, accountants have less reason to focus on the checks and balances provided by a strong IAF and, thus, may be reluctant to question management's directives, regardless of the strength of ethical leadership. Thus, as in the strong IAF and strong ethical leadership condition, in the weak IAF conditions accountants may be more willing to book a questionable entry. Accordingly, we propose the following hypothesis:



H1 In an environment with a strong IAF and weak ethical leader, accountants will be less willing to make a questionable journal entry than in all other conditions. Specifically, accountants will be less willing to make a questionable entry when there is a strong IAF and a weak ethical leader than when there is either a weak IAF regardless of the strength of ethical leadership or a strong IAF and a strong ethical leader.

Moral Intensity

Jones (1991) suggests that moral issues vary in their moral intensity. If there is no variation in the moral intensity of an issue, all moral issues are perceived as having the same exact impact (i.e., a \$10 misstatement on an expense report is viewed with the same moral intensity as a \$1 million misstatement on an audited financial statement). Jones identifies six components of moral intensity: the magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect. Moral intensity has been found to affect the ethical decision-making process in both a general business and accounting context (e.g., Ng et al. 2009; Waldron 2010).

Jones (1991) clearly states that moral intensity focuses on the issue, not the person or the organizational context. However, it is our contention that organizational context can influence employees' perception of the moral intensity level of any given issue. For example, in considering the magnitude of consequences (one of the components of moral intensity), Jones suggests that many moral issues are trivial in terms of their consequences. However, it is also likely that what is trivial in one organizational context may not be trivial in a different organizational context. For instance, when there is a strong IAF or strong ethical leadership, an issue may be perceived as non-trivial but when there is a weak IAF or weak ethical leadership, the same issue may be perceived as trivial. In considering social consensus (another component of moral intensity), Jones (1991) argues that it is difficult for people to know what good ethics are in a given situation without looking to others to understand what is considered acceptable ethical behavior. Again, it seems logical that two differing organizational environments (such as one with strong IAF vs. a weak IAF) will produce two differing social consensus assessments of the same ethical issue.

In considering the probability of effect (the third component of moral intensity), Jones states that the expected consequences are a product of the magnitude of the consequences, the probability of harm taking place, and the probability the action will cause the harm predicted. Since we believe that organizational context can influence the magnitude of consequences, by definition, it must also influence the probability of effect. As for temporal



immediacy (the fourth component of moral intensity), Jones argues that people discount the impact of events that occur in the future. The longer people perceive the time between the act and the consequences, the greater the discount for the impact of the action. We contend that different work environments may create differing perceptions of temporal immediacy. For example, if there is a strong (as opposed to a weak) IAF, employees may be more sensitive to the fact that the consequences of their actions will potentially become apparent to others sooner since a stronger IAF is more likely to uncover internal control irregularities.

Given the rationale described above that organizational context may influence the various components of moral intensity, we contend that the joint impact of ethical leadership and the IAF operates through the perceived moral intensity of the decision. We reason that the combination of weak ethical leadership and a strong IAF signals a heightened state of ethical concern when management requests an employee to engage in a questionable action. For example, we expect that with a strong IAF, weak ethical leadership increases employees' concern for and their sensitivity to the magnitude of consequences and social consensus associated with questionable activities like booking an undocumented journal entry. Thus, it is possible that when there is a weak ethical leadership, a strong IAF can heighten one's sensitivity to the effects that one's actions has on others. The combined influence of ethical leadership and internal audit quality on the accountant's decision to book the entry may operate through their impact on the accountant's evaluation of the moral intensity of the ethical dilemma. Accordingly, we expect that managers' perception of the moral intensity of the issue itself will mediate the effect of ethical leadership and internal audit quality on the accountant's decision to book the entry (see Fig. 1). The above discussion leads to the following hypothesis:

H2 Assessments of moral intensity will mediate the interactive effect of ethical leadership and the IAF on the decision to book a questionable journal entry.

Methodology

Participants

Participants were experienced accountants with an average of 21.65 years of professional work experience.² As our

² In 2010, we mailed instruments to 1,200 individuals identified by the American Institute of Certified Public Accountants (AICPA) as an executive, manager, or staff accountant employed in business or industry. We received replies from 109 individuals and 13 were returned as undeliverable. The resulting response rate of 9.2% (109 responses divided by 1,187 delivered) is consistent with prior studies involving CFO/controller participants (e.g., Graham and Harvey 2001; Gibbins et al. 2007; Sanchez et al. 2007; Agoglia et al. 2011).

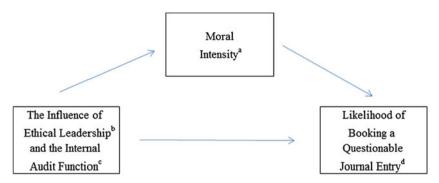


Fig. 1 Mediation model. Moral intensity as a mediator of the interactive effect of ethical leadership and the internal audit function. ^a Moral intensity is measured utilizing the questions and scales adapted by McMahon and Harvey (2006). ^b Ethical leadership is

manipulated as either strong or weak. ^c The internal audit function as either strong or weak. ^d Participants recorded their decision regarding how likely they were to book a questionable entry on a six-point scale (1 = "very unlikely") and 6 = "very likely")

experiment asks participants to assume the role of an assistant-controller at a company, it was important that we selected experienced accountants who are familiar with how financial reporting decisions are made at these companies. Participant demographic data is presented in Table 1, Panel A.

Design and Independent Variables

To test our hypotheses, we conduct an experiment requiring participants to make a decision regarding whether or not they will book an accrual as requested by their controller in which the two variables of interest—ethical leadership and IAF strength—are both manipulated at two levels, strong and weak.

In our scenario, the controller indicates that the entry will be for expenses which may have been incurred but not yet reported to the accounting department. The assistantcontroller performs analytical procedures that reveal that consulting expenses were properly accrued for at the prior year-end but under-accrued for each of the prior three quarters. Thus, the assistant-controller is faced with the ethical dilemma of whether or not to book the entry without adequate documentation.

Our first manipulated independent variable is ethical leadership. Brown et al. (2005) propose, and validate, an ethical leadership construct that includes the components of demonstrated integrity and high ethical standards, considerate and fair treatment of employees, and holding employees accountable for ethical conduct. We use all of these components to describe our ethical leader, the chief financial officer (CFO). In the *strong ethical leadership* condition, employees trust the CFO as someone who treats people fairly, the CFO is vocal about the importance of making ethical decisions, demonstrates ethical values with actions, and, when confronted with difficult accounting



decisions, asks: Is this "the right thing to do?" In the *weak ethical leadership* condition, employees do not trust the CFO as someone who treats people fairly, the CFO is seldom vocal about the importance of making ethical decisions, does not demonstrate ethical values with actions, and, when confronted with making difficult accounting decisions, asks: Is this "getting us the financial results we want?"

Our second manipulated independent variable is the strength or quality of the IAF. We manipulate this variable at two levels-strong, weak-by altering the reporting relationship of the IAF, the primary role (i.e., assurance or consulting) of the IAF, and the quality of the IAF's work (i.e., its history of finding internal control deficiencies). Prior research suggests that the external auditing standards (i.e., SAS No. 65 and PCAOB Auditing Standard 5) can be used to evaluate quality in terms of internal audit competence, quality of work performance and objectivity (AICPA 1997; PCAOB 2007a, b). We hold competence, which is often measured in terms of experience, training, and certification of the internal auditors (Gramling and Myers 1997), constant across the two IAF conditions by including the following description in our research instrument: "All of the staff have an accounting background and are Certified Internal Auditors." Regarding the quality of work performance, output measures such as indicators of internal audit work performance quality (i.e., history of finding internal control deficiencies) are also helpful in assessing internal audit quality (Gramling and Hermanson 2009).

The Institute of Internal Auditors (IIA) professional standards require internal auditors to be objective when performing their work (IIA 2010) and the reporting relationship of the IAF is an indicator of objectivity in fact and appearance (Prawitt et al. 2009; DeZoort et al. 2001). An IAF that is more independent of management

Table 1 Demographic data and correlations among dependent variable and background variables

			n			Percent
Panel A: Demographic data						
Participants with external audit experience		55				
Participants with no external audit experience	23				30	
Participants with public company experience			54			69
Participants with no public company experience			24			
Participants with internal audit experience			13			17
Participants with no internal audit experience			65			83
			Mean			SD
Professional work experience (years)			21.65			9.57
Public company work experience (years)			10.27			8.06
External audit experience (years)			4.97			4.18
Internal audit experience (years)			7.19			6.74
Familiarity with recording expense accruals ^a			5.65			1.33
Experience with meeting analysts forecasts ^b			4.71			1.70
	1	2	3	4	5	6
Panel B: Correlations						
Likelihood to book journal entry						
Professional work exp. (years)	0.11					
Public company work exp. (years)	0.23**	0.26**				
External audit exp. (years)	-0.15*	0.21**	-0.13			
Internal audit exp. (years)	0.24**	0.29***	0.23**	-0.19*		
Familiarity with recording expense accruals ^a	0.20**	0.10	0.20**	0.10	0.08	
Experience with meeting analysts forecasts ^b	0.07	0.21**	0.46***	0.04	0.02	0.40***

* Correlations significant at the 0.10 level (one-tailed)

** Correlations significant at the 0.05 level (one-tailed)

*** Correlations significant at the 0.01 level (one-tailed)

^a Participants reported their familiarity with recording expense accruals on a seven-point scale where 1 = "not at all familiar" and 7 = "very familiar"

^b Participants reported their experience with meeting analysts forecasts on a seven-point scale where 1 = "not at all experienced" and 7 = "very experienced"

(i.e., reports to the audit committee instead of the chief financial officer) is thought to be more objective (Messier and Schneider 1988; Kaplan and Schultz 2007). Another indicator of objectivity is the primary role of the IAF within the company (i.e. assurance or consulting) (DeZoort et al. 2001). While internal auditors should be objective when performing either assurance or consulting activities, research shows internal auditors are unable to remain objective serving in a management consulting role in a corporate acquisition setting (Brody and Lowe 2000; Ahlawat and Lowe 2004). Research also suggests that an IAF that spends more time focused on financial work (i.e., assurance activities) is associated with a moderation in the level of earnings management (Prawitt et al. 2009). Therefore, based on the professional standards and prior research described above, an IAF that reports to the audit

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committee and primarily performs oversight and monitoring activities and has a history of finding deficiencies in internal control is expected to be of higher quality as they are more likely to discover and report areas of accounting manipulation.

Accordingly, in the *strong internal audit function* condition, participants are told the IAF reports directly to the audit committee. They are also told the chief executive officer establishes the internal audit budget and makes hiring and firing decisions for the unit and that the IAF has historically spent approximately 90% of its time on oversight and monitoring activities and 10% on management consulting activities. Finally, participants in this condition are told the IAF has a history of finding deficiencies in internal control over financial reporting. In the *weak internal audit function* condition, participants are told the



IAF reports directly to the chief financial officer. They are also told the CFO establishes the internal audit budget and makes hiring and firing decisions for the unit and that the IAF has historically spent approximately 30% of its time on oversight and monitoring activities and 70% on management consulting activities. Finally, participants in this condition are told the IAF has a history of missing deficiencies in internal control over financial reporting.

Dependent and Mediating Variables

The dependent variable for Hypothesis 1 and Hypothesis 2 is the participants' likelihood that they would book a questionable journal entry as requested by the controller.³ Specifically, participants responded to the question, "As the assistant-controller of this company, how likely are you to book the journal entry as requested by the controller?" Responses were indicated on a six-point scale (1 = "very unlikely" and 6 = "very likely").

For Hypothesis 2, we examine the mediating role of moral intensity. Please recall that moral intensity consists of six components: magnitude of consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect (Jones 1991). To measure the moral intensity of the issue in this case, we utilize portions of the perceived moral intensity measures and scale adopted by McMahon and Harvey (2006). Moral intensity is measured by obtaining participants' agreement with nine statements (see Appendix). Participants indicated their agreement using a 7-point Likert-type scale (1 = very)strongly disagree, 7 = very strongly agree). Four of the six moral intensity characteristics are measured using two statements for each characteristic and the fifth moral intensity characteristic was measured with a single statement. Following McMahan and Harvey (2006),⁴ we do not include the sixth moral intensity characteristic, concentration of effect, in our measurement of moral intensity. The responses to these nine statements are summed to create one composite measure of perceived moral intensity with lower scores indicating higher perceived moral intensity of the issue. Participant scores ranged from 17 (higher moral

⁴ McMahan and Harvey (2006) dropped the sixth moral intensity characteristic from their analysis when validating their perceived moral intensity scale.



intensity) to 55 (lower moral intensity) with a median score of 36. Cronbach's alpha for our moral intensity measure is 0.73, exceeding the generally accepted measurement validity threshold of 0.70 (Nunnally 1978).

Procedures

We provided participants with a research instrument containing two sections: a decision task associated with recording an accrual at the request of the controller and a post-experimental and demographic questionnaire. In the context of the study, participants are asked to assume the role of an assistant-controller (i.e., mid-level employee) in a hypothetical company and are told they are satisfied working for that company. They are also informed that the company is financially strong, stable, and strategically well-positioned and has steadily increased profits and met or exceeded analysts' expectations. Given this scenario, participants are then informed that the controller would like them to book a \$3 million year-end expense accrual entry. They are also provided financial information that indicates the latest operating income projection (\$205 million), the revised operating income projection if the entry is made (\$202 million), and the analysts' forecast for operating income (\$201 million).

Participants are also told that the controller has no invoices or other paperwork to support the accrual request and that the controller's response to further inquiry regarding the nature of the accrual is that "we will eventually find out someone has expenses they haven't told us about; it happens all the time." Participants are told they have a good working relationship with the controller. Finally, participants are advised further analytical procedures reveal that consulting expenses had been properly accrued at the prior year-end but the consulting expenses were under-accrued for each of the prior three quarters. After considering the case information, participants recorded the likelihood that they would book the entry as requested by the controller and responded to several postexperimental and demographic questions.

Results

Manipulation Checks and Potential Covariates

After completing the case, participants were asked how likely they were to book the journal entry as requested by the controller. Of 109 participants, 12 did not provide a response to this question. Participants were also asked to answer two manipulation check questions. The first question asked whether the CFO was ethical or unethical, and the second question asked participants about the quality of

³ While the decision task in most ethics research involves a forced choice between "right" and "wrong," our decision task—to make [or not make] the journal entry—is specifically designed to be "ethically neutral." That is, a reasonable business case can be made for either booking the journal entry or not booking the journal entry. Thus, the term "questionable journal entry" is not meant to suggest "right" or "wrong" but rather refers to uncertainty in the decision.

Independent variable		Type III SS	df	F statistic	p Value
Panel A: ANCOVA for ma	magers' willingness to	book a questionable journ	nal entry ^a		
Ethical leadership (EL)		3.65	1	1.60	0.11
Internal audit function (IA	AF)	0.85	1	0.38	0.27
$EL \times IAF$		6.30	1	2.77	<0.05 ^b
Internal audit experience	(years)	10.06	1	4.42	0.02
Experience with accruals		7.37	1	3.24	0.04
				Internal audit function	
Ethical leadership		Strong		Weak	Overall
Panel B: Means (SDs) of n			ırnal entry ^b	2.40	2.61
Strong	Mean	3.73		3.40	3.61
	SD	1.51		1.59	1.53
	n	26		15	41
Weak	Mean	2.74		3.39	3.05
	SD	1.33		1.85	1.61
	n	19		18	37
Overall	Mean	3.31		3.39	3.36
	SD	1.50		1.71	1.59
	n	45		33	78
Source of variance	SS	df	F st	F statistic p Value	
Panel C: Contrast test of th	ne effect of ethical lea	dership and the internal au	dit function on	managers' willingness t	
Model contrast	9.67	1	4.25	5	0.04^{b}
Error	163.91	72			

Table 2 ANCOVA results, means [SDs] and contrast test of the effect of ethical leadership and the internal audit function on managers' willingness to book a questionable entry (Hypothesis 1)

^a Participants were asked how likely they were to book the journal entry as requested by the controller on a six-point scale where 1 = "very unlikely" and 6 = "very likely."

^b The p value identified is based on a one-tailed test since expectations are directional; the p values for all other variables are two-tailed

^c The contrast test is that the willingness to book the journal entry will be lower in the strong IAF/weak ethical leadership condition than in the other three conditions; the contrast weights are -3, +1, +1, +1

the IAF. Six of the remaining participants were dropped for not properly identifying whether the CFO in their case was an ethical or unethical leader, not properly identifying whether the IAF in their case was strong or weak, or not properly identifying both.⁵

To determine whether any background measures should be included as covariates in the hypothesis testing, correlations between the background measures and the dependent measure (i.e. participants' indication of how likely they were to book the questionable entry) were analyzed. The four background measures, number of years working for a public company, number of years of external audit experience, number of years of internal audit experience, and familiarity with accruals were all correlated with our dependent variable (see Table 1, panel B). Two variables—

⁵ Removing the six participants who failed the manipulation check from the analysis does not change any of the inferences drawn.

number of years of internal audit experience and familiarity with accruals—retained their significance when added to our initial model (with ethical leadership, the IAF and their interaction as factors) and are thus included as covariates in our model (shown in Table 2, Panel A). Thirteen additional participants, who indicated they had internal audit experience, did not provide a measure for the number of years of experience. These participants were dropped from the sample, resulting in a total sample size of 78 experienced accountants (12 financial executives, 54 financial managers, and 12 financial staff).

Tests of Hypotheses

Hypothesis 1 is tested using contrast coding that compares the dependent variable (i.e., the likelihood of booking an entry as requested by the controller) in the weak ethical leadership and strong IAF condition to the other three





conditions. For the specific pattern we expect, a weight of +1 was assigned to each of the cells with a weak IAF and the cell with a strong ethical leader and strong IAF; a weight of -3 was assigned to the cell with a weak ethical leader and a strong IAF.

Hypothesis 1 predicts accountants will be less willing to make a questionable entry when there is a strong IAF and a weak ethical leader than when there is either a weak IAF regardless of the strength of ethical leadership or a strong IAF and a strong ethical leader. Participants recorded their decision regarding how likely they were to book a questionable entry on a six-point scale (1 = "very unlikely")and 6 = "very likely"). As shown in Table 2, panel A, ANCOVA results reveal that the interactive effect of IAF and ethical leadership is significant (p value < 0.05). As reported in Table 2, panel C, the contrast is also significant, thus supporting Hypothesis 1. As shown in Table 2, Panel B, experienced accountants are least likely to book a questionable journal entry when there is a weak ethical leader and a strong IAF compared to all other conditions (i.e., when there is either weak IAF or a strong ethical leader and a strong IAF). These results suggest that when the IAF is strong, its influence on employees' accounting decisions depends on the strength of the ethical leadership, but when the IAF is weak, the strength of the ethical leadership does not matter.

The results of Hypothesis 1 show a significant contrast between weak ethical leadership and a strong IAF compared to all other conditions (i.e., strong ethical leadership and a strong IAF or weak IAF regardless of the strength of ethical leadership). In Hypothesis 2, we contend that perceived moral intensity of the issue will determine the interactive effect of ethical leadership and the IAF on a financial reporting decision. Moral intensity is measured by obtaining participants' agreement with nine statements adapted from McMahon and Harvey (2006) and presented in Appendix. Participants indicated their agreement using a 7-point Likerttype scale (1 = very strongly disagree, 7 = very stronglyagree). The responses to these nine statements were reverse scored and summed to create one composite measure of perceived moral intensity with lower scores indicating higher perceived moral intensity of the issue. The scale ranges from 0 to 63 and participants' reported scores of 17 (higher moral intensity) to 55 (lower moral intensity) with a median score of 36. In addition, we analyzed the factor structure of these statements to verify their consistency with the three factor structure of moral intensity reported by McMahon and Harvey (2006). A principal component factor analysis with varimax rotation was used on the nine statements. Three factors were identified, with factor loading scores greater than 0.5 for each of the nine statements. Untabulated results show that five of the statements loaded on the first factor. The first factor explained 37% of the variance of the statements with an eigenvalue of 3.35. The second factor included two statements and explained an additional 17% of the variance of the statements with an eigenvalue of 1.50. The third factor also included two statements and explained an additional 14% of the variance of the statements with an eigenvalue of 1.32. This factor analysis is consistent with the three factor solution reported by McMahon and Harvey (2006).

A separate ANCOVA was run using moral intensity as the dependent variable with ethical leadership and IAF strength as the independent variables and internal audit experience and experience with accruals as covariates (see Table 3, panel A). The results reveal that the interactive effect of IAF and ethical leadership on moral intensity was significant (*p* value < 0.04). As reported in Table 3, panel B, participants viewed the moral intensity of the issue differently based on the combination of ethical leadership (strong/weak) and strength of the IAF (strong/weak). Finally, contrasts tests show that those participants with weak ethical leadership and strong IAF are the most sensitive to viewing this issue as an ethical dilemma (mean = 33.00) compared to participants in the other three conditions (*p* value = 0.02) (see Table 3, panel C).

To test Hypothesis 2, we first use the Baron and Kenny (1986) test of mediation. According to Baron and Kenny (1986), four conditions are necessary to establish mediation (a) the independent and dependent variables must be significantly related; (b) the independent and mediating variables must be significantly related; (c) the mediator and dependent variable must be significantly related; and (d) the relationship between the independent variable and dependent variable should be insignificant (i.e., full mediation) or weaker (i.e., partial mediation) when the mediator is added. We first perform the appropriate contrast test comparing those in the weak ethical leadership and strong IAF condition to those in all other conditions (i.e., the weak IAF conditions and the strong ethical leadership and strong IAF condition). As in the test of Hypothesis 1, participants' experience as an internal auditor and their familiarity with accruals are added as covariates in the model. As shown in Table 3 panel C, the model contrast is significant with participants' composite score for moral intensity (the mediator) as the dependent variable (p < 0.05, one-tailed), thus satisfying the second condition of the mediation test. Correlation tests show that the dependent variable is significantly correlated with the potential mediating variable (r = 0.63, p value < 0.001), thus satisfying the third condition. And finally, when the mediating variable, participants' composite moral intensity score, is added to the initial contrast test as a covariate, the results (presented in Table 3, panel D) show that the covariate for composite moral intensity score is significant (p value < 0.001, onetailed) and the contrast itself is no longer significant. This

Table 3 Mediation analysis (Hypothesis 2)

Independent variable	Type III S	S df	F statistic	p Value	
Panel A: ANCOVA for the effect	of IAF and ethical leadershi	p on moral intensity ^a			
Ethical leadership (EL)	86.65	1	1.28	0.13	
Internal audit function (IAF)	58.44	1	0.87	0.18	
$EL \times IAF$	240.94	1	3.57	0.03 ^b	
Internal audit experience (years)	1.81	1	0.03	0.44	
Experience with accruals	331.61	1	4.92	0.02	
		Internal audit function			
Ethical leadership		Strong	Weak	Overall	
Panel B: Descriptive statistics for	moral intensity ^a				
Strong	Mean	38.68	37.00	38.11	
	SD	9.14	6.93	8.66	
	n	25	13	38	
Weak	Mean	33.00	37.78	35.32	
	SD	8.89	7.91	8.25	
	n	19	18	37	
Overall	Mean	36.23	37.45	36.73	
	SD	9.07	7.24	8.52	
	n	44	31	75	
Source of variance	SS	df	F statistic	p Value	
Panel C: Results of contrast codin	g using moral intensity as th	e dependent variable ^c			
Model contrast	368.53	1	5.46	0.02 ^b	
Error	4,655.22	69			
Source of variance	SS	df	F statistic	p Value	
Panel D: Results of contrast codin variable	g for managers' willingness t	o book the entry as the	dependent variable and mor	al intensity as the mediating	
Model contrast	1.23	1	0.851	0.36 ^b	
Composite moral intensity score	55.43	1	38.41	< 0.001	
Error	98.13	68			

^a Moral intensity is measured by obtaining participants' agreement with nine statements adapted from McMahan and Harvey (2006) and presented in Appendix. Participants indicated their agreement using a 7-point Likert-type scale (1 = very strongly disagree, 7 = very strongly agree)

^b The p value identified is based on a one-tailed test since expectations are directional; the p values for all other variables are two-tailed

^c The contrast test is that the willingness to book the journal entry will be lower in the strong IAF/weak ethical leadership condition than in the other three conditions; the contrast weights are -3, +1, +1, +1

indicates mediation of the ethical leadership-IAF effect by moral intensity.

In addition, we also conducted a Sobel Test, which directly tests the presence of mediation by assessing whether the direct effect of the ethical leadership and IAF contrast on manager's willingness to the book the journal entry is significantly reduced upon the addition of the mediator, the composite moral intensity score, to the model (Preacher and Hayes 2004). Following the methodology set forth by Preacher and Hayes (2004), we find that the direct

effect (0.03) of the ethical leadership–IAF contrast on manager's willingness to book the entry after controlling for the moral intensity mediator is not significant (p value > 0.10). Further, the Sobel test results indicate the indirect effect (0.23) of the interaction on manager's willingness to book the entry through the moral intensity mediator is significant (z = 2.02, p value = 0.02) with a bootstrapped 95% confidence interval ranging from 0.016 to 0.50. This provides additional support for our mediation hypothesis.



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Supplementary Analyses

As described in the previous section, we find that accountants are least likely to book a questionable journal entry when there is a weak ethical leader and a strong IAF compared to all other conditions. In an effort to shed light on these results, in this section, we examine whether participants' perceptions of the appropriateness and ethicalness of the request to book the undocumented journal entry are different in the strong IAF and weak ethical leadership condition compared to all other conditions.⁶ In the paragraphs below, we report the results of this analysis.

First, participants were asked if the journal entry is appropriate given the current financial projections and the controller's concern for unbilled expenses. A contrast test comparing participants' perceptions of the appropriateness of the journal entry in the weak ethical leadership and strong IAF condition to the other three conditions indicates a statistically significant lower mean response (mean = 3.42) in the strong IAF and weak ethical leadership condition than that in any of the other three conditions (all means > 4.38) (t = 2.83, p value < 0.01, two-tailed). Second, participants were asked if the controller's request to book the journal entry is unethical. Contrast results comparing participants' perceptions of the ethicalness of the journal entry request in the weak ethical leadership and strong IAF condition to the other three conditions indicates a significantly higher mean response for participants in the strong IAF and weak ethical leadership condition (mean = 5.11) than the response for participants in any of the other three conditions (all means < 3.81) (t = -3.44, p value < 0.01, two-tailed). Overall, this evidence suggests that when there is a weak ethical leader and a strong IAF, the request to book a questionable journal entry is viewed differently-as less appropriate and less ethical-than it is in the other conditions. This suggests that ethical leadership and the IAF combine to influence perceptions of the appropriateness and ethicalness of a financial reporting decision.

Discussion and conclusions

This study provides evidence on the joint influence of IAF and ethical leadership on an ethically charged accounting

⁶ The two questions are as follows. First, participants reported their agreement with the statement "most financial managers will view the request by the controller to book a \$3 million entry as appropriate given the current financial projections and the controller's concern for unbilled expenses not included in the year-end financial statements" on a seven-point scale (1 = "very strongly disagree" and 7 = "very strongly agree"). Second, participants reported their assessment of whether the controller's request to book a \$3 million entry is unethical on a seven-point scale (1 = "very strongly disagree" and 7 = "very strongly agree").



decision. While prior research has examined the effects of the IAF and, to a lesser extent, ethical leadership on accounting decisions (e.g., Merchant and Rockness 1994; Douglas et al. 2001; Prawitt et al. 2009), research to date has not considered the *joint* effect of these factors on such decisions. In addition, prior accounting research has often focused on the economic incentives for the behavior (e.g., Healy 1985; McVay 2006; Cohen et al. 2008), and has focused relatively less attention on, for instance, organizational factors. Consistent with findings in organizational research, this article shows that there is a significant joint influence of organizational attributes-specifically, ethical leadership and the IAF-on accountants' decision making. That is, accountants are less likely to book a questionable journal entry when there is a weak ethical leader and a strong IAF compared to all other conditions (i.e., when there is either weak IAF or a strong ethical leader and a strong IAF). In addition, we find that accountants question the appropriateness and ethicalness of the undocumented journal entry more in a weak ethical leader and strong IAF condition than in the other conditions (i.e., when there was a strong IAF and a strong ethical leader or when there was a weak IAF and a weak or strong ethical leader). These results suggest that the IAF has a different impact on financial reporting decisions based on the strength of the ethical leadership in place in an organization and that a strong IAF may have certain consequences (such as decreasing the likelihood of booking an undocumented journal entry) when combined with weak ethical leadership.

We interpret these results to suggest that a strong IAF appears to heighten accountants' sensitivity to the ethical attributes of executive leadership, which in turn differentially influences accounting decisions. When a strong IAF is present to monitor the actions of employees, accountants are not just willing to "go along" with their immediate supervisor in an environment of weak ethical executive leadership. Indeed, in this strong IAF and weak ethical leader condition, compared to all other conditions, accountants perceive the request to book the undocumented entry as less ethical and less appropriate. Thus, when there is a strong IAF and strong ethical leadership and when a weak IAF is present, concern about the ethicalness and appropriateness of the request seems to diminish, thereby increasing accountants' willingness to follow the directives of an immediate superior and book the undocumented entry.

From a practical perspective, the external validity of the strong IAF and weak ethical leadership condition may not be readily apparent. While a strong IAF can lead to a strong internal control system, we contend that any manager who wants to override an internal control system, regardless of its strength, usually has the knowledge and ability to do so (Radin 2008). The well-documented Enron case provides some support for this position. Specifically, the Enron Board of Directors voted twice to override the internal controls in place that allowed the chief financial officer to invest in, and profit from, the special purpose entities that caused many of the company's reporting problems (Downes and Russ 2005). In this case, strong internal controls were in place but weak ethical leaders chose to override the controls.

This study also provides evidence of the effect of the moral issue itself on accounting decision making. While some accounting research has validated the components of the Jones (1991) model in an accounting context (Merchant and Rockness 1994; Leitsch 2004), prior research has not documented the triggers for this mechanism. Our results suggest that accountants will make financial reporting decisions in response to the IAF and ethical leadership differently depending on the perceived moral intensity of the issue involved. That is, moral intensity mediates the interactive effect of the IAF and ethical leadership.

Many judgments that accountants make in the course of compiling financial reports are often differentially "ethically charged" in that they often are perceived as more or less morally intense (Elias 2002; Belski et al. 2008). For instance, an accountant would not view the release of fraudulent financial statements by her firm with the same alarm as a slight over-accrual of expense at the end of the reporting period. In contexts in which the moral intensity of ethical decisions is high, ethical leadership and the role of the IAF may send a completely different signal to an employee depending on the strength of that leadership. The results presented here suggest that the assessment of moral intensity in a particular situation is necessary to accurately model the financial reporting decision process. Specifically, accountants' responses to factors surrounding the issue-strength of the IAF and ethical leadership-are filtered through the accountants' perception of the moral intensity of the issue. The more moral intense the issue is perceived to be, the less willing accountants are to book the entry. Given the significant mediating effect of moral intensity on the interactive effect of ethical leadership and the IAF, factors that influence perceptions of moral intensity ought to be considered in subsequent research on ethical decision making.

While prior research has focused on a supervisor-direct reporting relationship to measure the impact of ethical leadership (Brown et al. 2005), our research focuses on an indirect relationship between the decision maker and his/ her more distance superior. Our results indicate that an ethical leader (i.e., CFO) can exert influence on the decision making of mid-level employees (such as an assistant-controller) even when such leader is not the employee's immediate supervisor, thus providing further evidence of the importance of "tone at the top." In addition, since lower level employee interaction with executive management is often minimal, inferences made about the ethicalness of such leaders are likely to be derived from public or organizational level information (e.g., corporate social responsibility or malfeasance) rather than direct experience (Lord and Maher 1991). If this is the case, perceptions of executive ethical leadership may be managed via broad-based efforts at image management. Future research could examine whether the results presented here are malleable to image management techniques such as business press releases or company-wide newsletters, for instance, publicizing company initiatives to increase ethical decision making or depicting organizational leaders as credible role models. In this way, the ethical salience of a decision can be reinforced, thereby contributing to ethical outcomes.

This study finds that the joint effect of a strong IAF and weak ethical leadership is to reduce discretionary accruals when the questionable entry involves an additional expense accrual. Future research could assess whether these results hold in a scenario that involves a questionable entry that decreases an expense accrual. In addition, the results of this study are somewhat counterintuitive if one's a priori perspective is that making discretionary accruals is similar to managing earnings and, therefore, unethical behavior. However, like most decisions in the real-world, the accounting decision presented here is ambiguous, its outcome is not clearly determinable as "right" or "wrong" and professional judgment is required. In such decision settings, the surrounding circumstances-such as ethical guidance from the profession, the organization and its leaders-inform one's perception of the appropriate course of action. The results here suggest that the organizational factors of the IAF and ethical leadership (even distant leadership) are jointly effective at altering how ill-defined tasks are perceived and, thereby, influencing task outcomes. Future research could investigate whether these results would generalize to other decision situations including more structured and clearly defined (un)ethical tasks or behaviors (such as, for instance, employee theft).

The results of this study should prove interesting to several parties. Companies and their board of directors and audit committees should be aware that the strength of the IAF and the degree of ethical leadership combine to influence the financial reporting process. Even with a high quality IAF in place, it may be that the strength of ethical leadership significantly influences how accounting professionals behave within the financial reporting function. In addition, the SEC, managements of stock exchanges, and other groups interested in corporate governance processes should consider the role of internal auditing along with its

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interactive influence with executive management on financial reporting when developing financial reporting regulations.

Limitations of this research should be noted. First, the information provided to participants was limited to minimize the time necessary to complete the experimental instrument. Since accounting professionals would have a richer information set in practice when making accounting decisions, this leaves open the question of external validity and the generalizability of our results. However, this limit, while noteworthy, is also applicable to most experimental research. Second, highly experienced accountants participate in the current study. While this is appropriate given the accounting decision task here, we do not know if our results generalize to entry level accountants. Third, it is not clear whether the differences in the means of accountants' willingness to book a questionable journal entry (presented in Table 2, panel B), although statistically significant, is meaningful in practice. Future research should investigate differences in accountants' decisions using a dichotomous (i.e., book or not book), rather than a scaled, response scale to shed light on this issue. Finally, in our experimental case, we manipulated IAF quality as defined by SAS 65 and IAF activity focus (i.e., assurance or consulting) simultaneously, inhibiting our ability to disentangle the influence of each factor on the accounting decisions. Future research could separately examine these two IAF variables to determine their independent effects on accounting decisions.

Concerns about ethics and leadership have dominated recent headlines about business and shaken public confidence in many organizations. In response, regulatory agencies have strengthened corporate governance requirements including policies and requirements directed at the IAF and executive management (New York Stock Exchange 2003). These developments emphasize the need for research on ethical leadership and the IAF. The results presented here suggest that the effects of ethical leadership cannot be determined independent of internal control policies including the IAF and vice versa. In addition, the moral intensity of any decision situation must be considered when predicting decision outcomes. More research is needed in both identifying and examining individual and other organizational variables-and how they affect perceived moral intensity-to obtain a more complete understanding of financial reporting decisions.

Appendix

See Table 4.

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Table 4 Measures of perceived moral intensity

- The negative consequences related to booking the entry, if any, will be very serious (MC) (R)
- The overall harm as a result of this decision will be very small (MC)
- People are not likely to agree about whether the decision to book or not to book the entry was right or wrong (SC)
- Most people would agree on what the appropriate decision is in this scenario (SC) (R)
- The decision will not cause harm in the immediate future (TI)
- The negative effects, if any, of the decision will be felt very quickly (TI) (R)
- You, as the assistant-controller, are unlikely to be close to anyone who might be negatively affected by the decision to book the entry (PX)
- The harmful effects, if any, of the decision will affect people that are close to you, the assistant-controller (PX) (R)
- There is a very small likelihood that the decision to book the entry will actually cause harm (PE)

MC magnitude of the consequences, *SC* social consensus, *TI* temporal immediacy, *PX* proximity of effect, *PE* probability of effect, *R* item is reversed coded when calculating moral intensity

The nine statements above are adapted from McMahon and Harvey (2006). Participants indicated their agreement with each statement using a seven-point scale where 1 = "very strongly disagree" and 7 = "very strongly agree."

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