

# **Internal Audit Reporting Lines, Fraud Risk Decomposition, and Assessments of Fraud Risk**

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**Disclosure**

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## OBJECTIVE OF STUDY

The independence of the internal audit function of an organization has been the topic of a considerable amount of attention since the collapse of several large American organizations. A number of groups believe that the chief audit executive (CAE) should report directly to the audit committee (i.e., investor protection groups, internal audit professionals, academic researchers, and other professional organizations) to enhance the independence and objectivity of the internal audit function. Passage of the U.S. Sarbanes Oxley Act of 2002 and associated stock exchange regulations gave the audit committee substantial oversight responsibility and authority over firms' internal audit functions. It is possible that these increases in audit committee power have created new independence and objectivity threats to internal auditors that have not previously been considered. Based on these potential threats, our study examines the effects of internal audit reporting lines on the judgments and decisions of internal auditors. Our study is conducted within the context of a fraud risk assessment because internal auditors face significant pressures from management when making risk assessments and because evaluation of fraud risks and the causes of these risks are important and vital functions of the internal audit department.

Prior fraud risk assessment research has focused on external auditors. However, there is evidence to suggest that internal auditors' risk assessment judgments are influenced by different factors than are the risk assessments of external auditors. External auditors are primarily concerned with litigation threats that arise if they do not exercise due professional care in assessing the risk of financial statement fraud, and they tend to focus on red flags associated with management's attitude (Barron et al. 2001; Hirst 1994). On the other hand, internal auditors tend to focus on the specific incentives and opportunities that make financial statement fraud possible, and they design and monitor appropriate preventive and corrective controls. Wilks and Zimbelman's (2004) study suggests that decomposition of fraud risk assessments can increase external auditors' attention to attitude cues and reduce judgment biases associated with the fraud risk assessment process. However, based on the different judgment processes employed by internal auditors, relative to external auditors, we anticipate that decomposition of fraud risk assessments will increase internal auditors' sensitivity to attitude cues and may actually induce decision biases for internal auditors.

## **RESEARCH QUESTIONS**

Our study focuses on two primary issues associated with internal auditors' assessments of financial fraud risk. First, we question whether the reporting line (top management versus audit committee) for the internal audit department will affect internal auditors' assessments of fraud risk. Second, we examine whether decomposition of fraud risk assessments into the components of the fraud triangle (risks of attitudes, incentives, and opportunities) will cause internal auditors to rely more on attitude cues, relative to when holistic risk assessments are made.

## METHODOLOGY

Due to the lack of prior research with respect to the reporting lines of internal auditors (top management versus the audit committee), we first conducted a survey of 27 experienced internal auditors (mean experience = 15.3 years, including six CAEs) to gain a better understanding of internal auditors' concerns regarding fraud risk assessment reporting. Our survey questions are presented in Table 1.

**TABLE 1**  
**Survey Results**

| <b>Response Items</b>   | <b>Mean</b> | <b>SD</b> | <b>Test</b> | <b>t</b> | <b>P</b> |
|---|-------------|-----------|-------------|----------|----------|
| <b>1.</b> Who would react more strongly to a high assessment of financial fraud risk made by the internal audit function, management or the audit committee? (-5 = Management, 0 = No Difference, 5 = Audit Committee)  | 2.85        | 1.875     | = 0         | 7.903    | .000     |
| <b>2.</b> When firm policies require that the internal audit function reports assessments of risk, such as financial fraud risk, directly to the audit committee, what is the likelihood that these risks are discussed with management before reporting to the audit committee? (-5 = No Likelihood, 0 = Moderately Likely, 5 = Very Likely)   | 4.00        | 1.109     | = 0         | 18.735   | 0.000    |
| <b>3.</b> If a member of the internal audit function reports a high level of financial fraud risk to the audit committee without discussing the assessment with management, what are the potential consequences for the internal audit member? (-5 = Very Negative Consequences, 0 = No Consequences, 5 = Very Positive Consequences)   | -2.00       | 1.240     | = 0         | -8.379   | 0.000    |
| <b>4.</b> If the internal audit function determines that there is a high level of financial fraud risk, which group will be more likely to significantly increase the workload of the internal audit function, management or the audit committee? (-5 = Management, 0 = No Difference, 5 = Audit Committee)   | 0.85        | 1.231     | = 0         | 3.595    | 0.001    |
| <b>5.</b> If the internal audit function performs a financial fraud risk assessment and determines that there is a high level of financial fraud risk, does management expect the internal audit function to find means of reducing the risk before reporting its findings to the audit committee, or does management expect the internal audit function to report its initial risk assessment? (-5 = Management Expects Reductions, 0 = No Management Expectations, 5 = Management Expects Initial Assessment) | -0.56       | 1.847     | = 0         | -1.563   | 0.130    |

These results suggest that internal auditors believe: (1) audit committees tend to react more strongly to high fraud risk assessments than do managers; (2) they might suffer negative consequences from management if they report high levels of risk to the audit committee without discussing these risks with management first; (3) they would report fraud risk assessments to management first, even if reporting lines indicate that they report directly to the audit committee; (4) their workload would increase if they reported a high fraud risk assessment to the audit committee; and (5) management expects them to mitigate a problem before reporting to the audit committee.

To investigate the effects of reporting lines on internal auditors' fraud risk assessments, we employed a controlled laboratory experiment that varied the type of fraud risk assessment (holistic versus decomposed), the level of fraud risk (low and high), and the reporting line for the audit function (top management versus audit committee). The case described a manufacturing company that was audited by the same Big Four independent public accounting firm for the past three years and received unqualified audit opinions. The participants also were told that most of the management team had been with the firm for more than eight years, they were very easy to work with, and they exhibited a high level of competence. The case information indicated that the character of the management team was of high quality. For example, the partner in charge of the external audit claimed that the integrity of upper management was impeccable, the chief executive officer (CEO) was highly regarded in the business community, and the CEO was an active leader in local community service organizations such as the United Way. Further, the case materials indicated that most people in the business community characterized the organization as being very supportive of community values and high ideals, which stemmed largely from the high ideals of the management team.

The internal auditors who participated in our study read this case background information and then reviewed a list of fraud cues (either six or 13 fraud cues). Following the case materials and fraud cue list, the participants were asked to evaluate the level of fraud risk for the organization. The participants in the holistic assessment group assessed the overall fraud risk, and the participants in the decomposed assessment group assessed the risks related to attitudes, incentives, and opportunities (SAS No. 99, AICPA 2002), as well as overall fraud risk. After each of these risk assessments, all participants completed an exit questionnaire. Those participants who made holistic fraud risk assessments were later asked to complete a decomposed risk assessment in the exit questionnaire. Half of the participants were told that they must report the results of their assessment directly to management; the other half reported directly to the audit committee.

The researchers approached a number of their internal audit colleagues and solicited their participation in this study. As a result, 172 internal auditors volunteered to participate, representing 21 organizations, including for-profit entities, as well as governmental, university, and other not-for-profit entities in the Southeastern part of the United States. The internal auditors had an average of 9.6 years of internal audit experience, and 70 percent had prior experience evaluating fraud risk before completing our case materials. All of the internal auditors had a bachelor's degree, 35 percent of the participants had a master's degree, and one participant held a PhD. The average age of our participants was 26.9, and 52 percent of the internal auditors were female.

## ANALYSIS

Table 2 reports the descriptive information (average responses and standard deviations) of the fraud risk assessments made by our study participants.

**TABLE 2**  
**Descriptive Statistics – Fraud Risk Assessments**

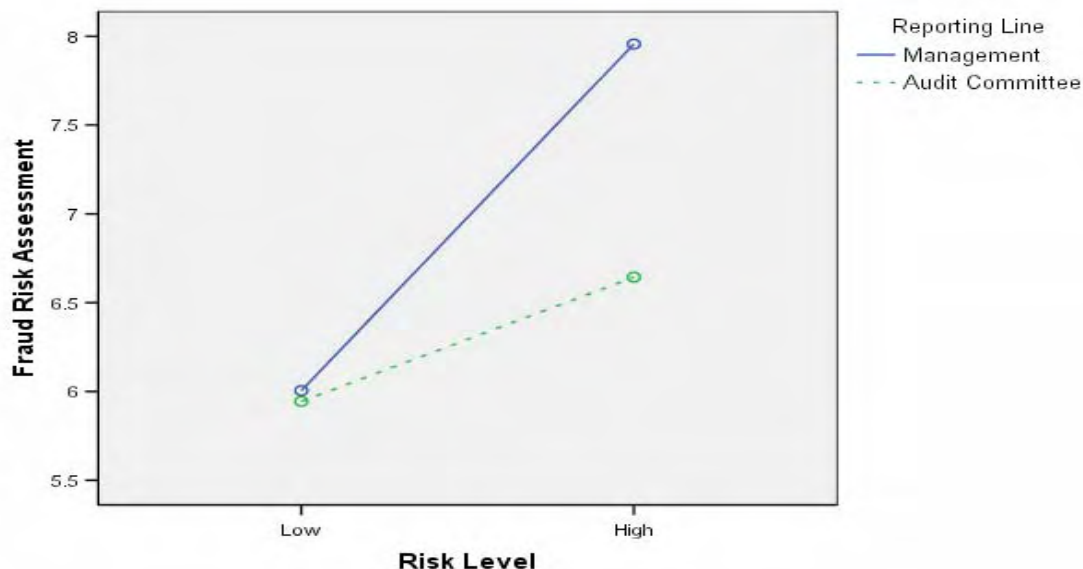
**Dependent Variable:** Overall Assessment of Fraud Risk

| <b>Risk Level</b> | <b>Assessment Type</b> | <b>Reporting Line</b> | <b>Mean</b> | <b>SD</b> | <b>N</b> |
|-------------------|------------------------|-----------------------|-------------|-----------|----------|
| Low               | Holistic               | Management            | 6.18        | 1.704     | 17       |
|                   |                        | Audit Committee       | 6.28        | 1.904     | 18       |
|                   |                        | Total                 | 6.23        | 1.784     | 35       |
|                   | Decomposed             | Management            | 5.83        | 1.855     | 18       |
|                   |                        | Audit Committee       | 5.61        | 1.335     | 18       |
|                   |                        | Total                 | 5.72        | 1.597     | 36       |
|                   | Total                  | Management            | 6           | 1.766     | 35       |
|                   |                        | Audit Committee       | 5.94        | 1.655     | 36       |
|                   |                        | Total                 | 5.97        | 1.699     | 71       |
| High              | Holistic               | Management            | 8.5         | 1.043     | 18       |
|                   |                        | Audit Committee       | 7.1         | 1.832     | 20       |
|                   |                        | Total                 | 7.76        | 1.651     | 38       |
|                   | Decomposed             | Management            | 7.41        | 1.228     | 17       |
|                   |                        | Audit Committee       | 6.19        | 1.682     | 16       |
|                   |                        | Total                 | 6.82        | 1.57      | 33       |
|                   | Total                  | Management            | 7.97        | 1.248     | 35       |
|                   |                        | Audit Committee       | 6.69        | 1.802     | 36       |
|                   |                        | Total                 | 7.32        | 1.671     | 71       |
| Total             | Holistic               | Management            | 7.37        | 1.816     | 35       |
|                   |                        | Audit Committee       | 6.71        | 1.887     | 38       |
|                   |                        | Total                 | 7.03        | 1.871     | 73       |
|                   | Decomposed             | Management            | 6.6         | 1.752     | 35       |
|                   |                        | Audit Committee       | 5.88        | 1.513     | 34       |
|                   |                        | Total                 | 6.25        | 1.666     | 69       |
|                   | Total                  | Management            | 6.99        | 1.814     | 70       |
|                   |                        | Audit Committee       | 6.32        | 1.759     | 72       |
|                   |                        | Total                 | 6.65        | 1.811     | 142      |

From the bottom section of the table (Risk Level Total), we see that internal auditors who were told that they reported directly to the audit committee assessed lower levels of fraud risk (mean or average = 6.32) than did internal auditors who were told that they reported directly to management (average = 6.99). This finding suggests that when internal auditors are required to report directly to the audit committee, they decrease their assessments of risk relative to when the internal auditors report their risk assessments to management.

Closer examination of the means in Table 2 suggests an interaction of reporting line and risk level. Note that at the Low Risk Level, the average response of the internal auditors who were told that they reported directly to management (mean = 6.0) was almost the same as the internal auditors who were told that they reported directly to the audit committee (mean = 5.94). However, at the High Risk Level, we find a significant difference in the average responses of the two groups. The average response of the internal auditors who were told that they reported directly to management (mean = 7.97) was significantly higher than the internal auditors who were told that they reported directly to the audit committee (mean = 6.69). This interaction is depicted graphically in Figure 1, which shows that the internal auditors' reporting line only affects their fraud risk assessments for the "High Risk" group (those who were given 13 fraud cues). The graph addresses our first research question presented above, which seeks to determine whether the reporting line (top management versus audit committee) for the internal audit department will affect internal auditors' assessments of fraud risk. Further statistical analyses reveal that the interaction is significant, and these analyses provide strong support for the proposition that internal auditors decrease assessments of fraud risk when they must report their risk assessments directly to the audit committee relative to when they report risks to management. This result indicates that requiring internal auditors to report risk assessments directly to the audit committee can actually create threats to internal auditors' objectivity.

**FIGURE 1**  
**Interaction of Risk Level and Reporting Line**



Regarding our second research question, we again examine the mean responses reported in Table 2, which indicate that overall assessments of fraud risk are significantly lower when internal auditors make decomposed (mean = 6.25) versus holistic (mean = 7.03) assessments of fraud risk. Through additional analyses, we discover that attitude risks have more influence on overall fraud risk assessments for decomposed, relative to holistic, risk assessments. However, the effects of attitude risks on overall risk assessments depend upon the risk assessment type. When

the internal auditors made holistic assessments of fraud risk, management attitude did not have a significant effect on overall assessments of fraud risk. In contrast, when the internal auditors made decomposed assessments of fraud risk, management attitude did have a significant effect on overall assessments of fraud risk.

## SUMMARY AND CONCLUSIONS

The purpose of this study was to investigate the effects of reporting lines and fraud risk decomposition on internal auditors' assessments of fraud risk. Our results suggest that requiring the internal audit function of an organization to report directly to the audit committee may not achieve the independence and objectivity benefits that were the intended benefits of new reporting line requirements. That is, we found that internal auditors decrease their assessments of risk when they must report fraud risk assessments directly to the audit committee rather than to management. To better understand the decision processes of internal auditors, we interviewed experienced practitioners and surveyed internal auditors. Our analyses reveal that (1) internal auditors perceive that there are career and reputation threats associated with reporting high levels of risk to the audit committee; (2) internal auditors are concerned that audit committee members might overreact to a high assessment of fraud risk; (3) such overreaction by the audit committee would increase the audit function's workload and increase the probability of retaliation by management; and (4) internal auditors believe they must first work to mitigate problems before reporting fraud risk issues to the audit committee. Overall, our findings suggest that internal auditors are more concerned about reporting risk to the audit committee than they are to management. Thus, new requirements for the internal audit function to report directly to the audit committee, rather than to management, create similar threats to independence and objectivity that were present before the new requirements.

Results from our study also suggest that internal auditors are not influenced by decomposition of fraud risk assessments in the same manner as are external auditors. For internal auditors, decomposition of fraud risk assessments results in increased attention to management attitude cues across all levels of risk, without corresponding increases in attention to incentive or opportunity cues. This suggests that decomposing fraud risk assessments can actually amplify the problem that prompted consideration of mitigating mechanisms. Due to differences in the practice requirements and legal environments faced by internal and external auditors, these two groups of auditors react differently to risk decomposition. Decomposition of fraud risk assessments (based upon the fraud triangle) may improve the judgments of external auditors, but decomposition has unintended consequences for internal auditors.

The results from analyses of the effects of reporting lines and fraud risk decomposition each indicate that recent recommendations for improving audit practice and risk assessment processes can have adverse and unexpected consequences for the internal audit function. Our findings highlight the need for careful study and examination of assumptions about the expected benefits of new legal requirements (such as requirements to report directly to the audit committee) and the problems associated with drawing conclusions about the judgment processes of internal auditors from studies of external auditor judgment.

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