Assessing Fraud Risk, Trustworthiness, Reliability, and Truthfulness: Integrating Audit Evidence from Multiple Sources

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(ABSTRACT)

To assess fraud risk, auditors collect evidence in a sequential manner by reviewing workpaper documentation, and by collecting corroborating and clarifying information from financial (management) personnel and nonfinancial (operating) personnel. SAS 99 (AICPA, 2002) noted that audit evidence gathered from financial personnel may be susceptible to deception. In addition, prior researchers have found auditors to be poor at detecting deception immediately following deceptive communication. Though the audit process is sequential and iterative, these studies measured auditors' ability to detect deception at a single point and did not provide corroborating evidence after the deceptive communication for auditors to revise their judgments. In this study, I examined auditors' fraud risk assessments and truthfulness judgments throughout the audit process when there was an attempt at deception by management (financial) personnel. The belief adjustment model provided a framework to examine auditors' initial judgments, their judgments directly following a deception attempt by financial personnel, and their judgments after receiving corroborating evidence from nonfinancial personnel.

Sixty-four experienced auditors electronically completed one of four randomly assigned cases and, within each case, assessed the fraud risk, truthfulness, trustworthiness, and reliability of financial personnel at multiple points for a fictitious client. I manipulated the presence (absence) of fraud and the level of experience of the source of corroborating evidence (operating personnel). I hypothesized that auditors would not be able to differentially evaluate fraud risk and truthfulness judgments of financial personnel between the fraud and no fraud conditions when exposed to workpaper documentation and deceptive client inquiry evidence by

management (financial personnel). However, I expected to find that auditors' would update their fraud risk and truthfulness judgments as they reviewed audit evidence from nonfinancial (operating) personnel.

The results indicate that auditors in this study are not able to appropriately assess fraud risk and the truthfulness of financial personnel following the review of workpaper and client inquiry evidence. While the client was deceptive in the fraud condition only, auditors did not differentially assess the fraud risk and truthfulness of financial personnel between the fraud and no fraud conditions. After auditors reviewed evidence from nonfinancial personnel, in the presence of fraud, auditors increased their fraud risk and decreased their truthfulness judgments of financial personnel as inconsistent evidence was presented from a corroborating source. Therefore, in the presence of fraud, auditors improved the effectiveness of the audit process by appropriately increasing their fraud risk assessments in light of inconsistent audit evidence from nonfinancial (operating) personnel. Of equal importance, in the absence of fraud, auditors decreased their fraud risk assessments as consistent evidence was presented from a corroborating source. Therefore, auditors increased the efficiency of the audit process by appropriately decreasing their fraud risk assessments after integrating consistent audit evidence from nonfinancial personnel into their judgments. Further, I observed that these auditors revised their fraud risk assessments to a greater extent when audit evidence was provided by a source with a higher level of experience.

Though prior research has found auditors to be poor at detecting deception, the results of this study indicate that auditors will increase or decrease their fraud risk assessments and truthfulness judgments based on the consistency of audit evidence gathered from a corroborating source. Therefore, in practice, auditors may be able to detect deception as the audit progresses.

Dedication

For Dad, Michael, and Lou

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CHAPTER 1

INTRODUCTION

The Association of Certified Fraud Examiners' (ACFE) 2008 Report to the Nation on Occupational Fraud and Abuse estimates that fraud could cost U.S. organizations $994 billion per year (ACFE, 2008) up from $652 billion per year in 2006 (ACFE, 2006). Auditors' accurate assessments of and responses to fraud risk are key to reducing the cost of fraud. Statement on Auditing Standards (SAS) No. 99, *Consideration of Fraud in a Financial Statement Audit*, hereafter referred to as SAS 99, and research on fraud risk indicate that auditors' fraud risk assessments are influenced by information from multiple sources such as audit team brainstorming sessions (Carpenter, 2007), analytical procedure results (Knapp & Knapp, 2001), consideration of fraud risk factors and the use of decision aids (Pincus, 1989), and client inquiry information. The fraud risk assessment is an iterative process because auditors revise their initial beliefs of fraud risk as they collect new pieces of audit evidence such as evidence gathered via client inquiry (American Institute of Certified Public Accountants (AICPA), 2002). As such, the sequential nature of the judgments made by auditors during the fraud risk assessment process may be studied using the belief adjustment model which provides a theoretical framework of how individuals revise their beliefs in light of new evidence (Einhorn & Hogarth, 1981; Hogarth & Einhorn, 1992).

As part of the fraud risk assessment process, SAS 99 directs auditors to interview multiple entity personnel such as financial personnel (e.g. management) and nonfinancial personnel (e.g. operating personnel) to assess a client's risk of fraud (AICPA, 2002). Auditors initially conduct client inquiries with client personnel such as management or financial personnel. However, as noted by SAS 99, management is often in the best position to commit fraud. When fraud is present, management may attempt to conceal it by deceiving auditors during client inquiries (Allen, Hermanson, Kozloski, & Ramsay, 2006). Because of its susceptibility to deception, audit evidence gathered from management via client inquiry should be corroborated with audit evidence from other sources such as operating personnel (AICPA, 2002). An auditor's ability to detect deception in client communication influences the quality of audit judgments (Nöteberg, 2004) including the fraud risk assessment. Therefore, detecting deception when it exists in these communications and properly assessing client truthfulness is imperative to assessing fraud risk at an appropriate level. In this study, I examine the effects of combining information from multiple sources, all within the client, on auditors' fraud risk assessments, and client trustworthiness, reliability and truthfulness assessments.

Studies conducted on deception, in both accounting and psychology, have noted that people have a low deception detection success rate (Bond & DePaulo, 2006; Lee & Welker, 2007). Roberts (1995) measured participants' perception of deception, confidence in their deception judgments, and time allocations for the audit plan. She found that auditors were able to detect deception at a rate better than chance especially when the auditors had access to verbal cues (i.e. an audiotape of the client inquiry) and that those who judged the client personnel as deceptive allotted more hours to the audit. Lee (2000) and Lee and Welker (2007) found that participating auditing students viewing a video taped client inquiry were not able to detect deception at a rate better than that which would be expected by chance. To measure participants' ability to detect deception, they asked participants to indicate if they agreed with information provided by an interviewee and to provide the level of confidence in their decision. These studies focused on auditors' ability to detect deception immediately after the client inquiry and focused on nonverbal cues. However, they did not consider the effect of evidence gathered after the initial deceptive communication with client personnel.

I extend the research on auditors' ability to judge the truthfulness of client personnel by using a belief revision framework to capture the richness of the audit environment. The audit environment affords auditors the opportunity to revise initial beliefs such as an initial evaluation of fraud risk or an initial evaluation of the truthfulness of information provided by management via client inquiry. By providing additional audit evidence after the initial client communication, I allow auditors the opportunity to revise initial judgments of fraud risk and of client personnel as they would be able to do throughout the course of an audit. Further, this research extends prior fraud risk assessment research by providing to auditors client inquiry information from multiple client personnel with which to make risk judgments. In this way, I contribute to the literature on fraud risk and assessing client truthfulness by capturing the evidence corroboration aspect of the audit environment. That is, information gathered in subsequent stages of an audit may corroborate or contradict initial client inquiry and in fact, affect the ultimate fraud risk assessments and truthfulness judgments made by auditors. By providing audit evidence from multiple sources and the opportunity to make evaluations at different points in the audit, I address the following research question using the belief adjustment model as a framework:

> RQ: How do auditors integrate multiple pieces of audit evidence into their judgments of fraud risk, client trustworthiness, reliability, and truthfulness?

I conducted an experiment using 64 auditors with an average of 10.8 years of experience employed by public accounting firms to examine the effects of the presence of fraud and the level of experience of operating personnel (i.e. the warehouse manager) on auditors' fraud risk assessments, trustworthiness, reliability, and truthfulness judgments. Using a 2 X 2 design, I manipulated the presence of fraud by providing financial statement information issued by a public company that was found by the SEC to have committed fraud. For the no fraud condition, I included financial information for the same company that did not include the fraudulent transaction. Further, I manipulated the level of experience of the operating personnel (i.e., the warehouse manager) from whom the auditor receives client inquiry evidence. Participants in the lower experience condition received information from a warehouse manager with two years of experience, whereas participants in the higher experience condition received information from a warehouse manager with 12 years of experience.

The participants were asked to complete a fraud risk assessment at three different points during the study. The first assessment was completed after the presentation of company information including the financial statements. The second assessment was completed after the participants received client inquiry information from financial personnel (e.g., the chief financial officer and the divisional controller). The client inquiry information provided by the financial personnel was not truthful in the fraud condition, while in the no fraud condition, the information provided by the financial personnel was truthful. The final fraud risk assessment was completed after participants viewed client inquiry information from the warehouse manager. The client inquiry information provided by the warehouse manager was either consistent (no fraud condition) or inconsistent (fraud condition) with the information provided by financial personnel. Further, after each client inquiry, the participants assessed the trustworthiness, reliability, and truthfulness of the client personnel and documented their reasons for their assessments.

I find that auditors are not able to appropriately assess fraud risk and truthfulness judgments following the review of company information including the financial statements as no differences were observed for these assessments between the fraud and no fraud conditions.

Auditors were also not able to appropriately assess fraud risk following the review of the information provided by financial personnel. There were no differences in the fraud risk assessments between the fraud and no fraud conditions even though the financial personnel in the fraud condition were deceptive. In fact, I find that auditors in both the fraud and no fraud conditions increased their fraud risk assessments after reviewing the client inquiry evidence from financial personnel. After the review of corroborating audit evidence from nonfinancial personnel, auditors in both the fraud and no fraud conditions revise their initial fraud risk assessments and their trustworthiness, reliability, and truthfulness assessments of financial personnel. When auditors receive inconsistent audit evidence (fraud condition) from a corroborating source (nonfinancial personnel), they appropriately increase their fraud risk assessments and decrease their trustworthiness, reliability, and truthfulness judgments of financial personnel. When auditors receive consistent audit evidence (no fraud condition) from a corroborating source, they appropriately decrease their fraud risk assessments. Therefore, in the fraud condition, auditors increase the effectiveness of the audit process by incorporating the inconsistent audit evidence into their judgments as evidenced by an increase in their fraud risk assessments and assessments of client personnel. While in the no fraud condition, after the presentation of consistent audit evidence from a corroborating source, auditors increase the efficiency of the audit process by decreasing their fraud risk assessments in response to the additional consistent audit evidence.

Therefore, I provide support for the use of client inquiry evidence in audit judgments, but only when integrated with other audit evidence. I extend research on deception detection by demonstrating auditors' ability to appropriately assess client truthfulness when presented with evidence from a corroborating source. Contrary to prior research, I find that auditors can effectively detect client truthfulness given the ability to seek corroborating evidence. Additionally, I provide support for emphasizing the importance of audit evidence triangulation as the collection of information from multiple sources increases auditors' ability to properly assess fraud risk, trustworthiness, reliability, and truthfulness thereby affecting both audit effectiveness and efficiency.

In this study, I extended the accounting literature by investigating the influence of multiple pieces of audit evidence on auditors' judgments of fraud risk, trustworthiness, reliability, and truthfulness. I examined auditors' ability to detect deception by measuring their truthfulness judgments of client personnel in a manner that reflects audit practices and captures belief revision. Additionally, I examined auditors' ability to assemble pieces of audit evidence from multiple sources throughout the audit to gain a comprehensive picture of the client and the risk of material misstatement due to fraud associated with the client. Auditors following SAS 99 (AICPA, 2002) guidance to interview nonfinancial (operating) personnel should use the information from this source to triangulate the information provided by management (i.e., financial personnel) and to appropriately assess fraud risk and judge client truthfulness.

The remainder of this paper is organized as follows. In Chapter 2, I present a review of the background literature and develop the hypotheses. In Chapter 3, I present the research method. In Chapter 4, I address the data analysis and present the results. In Chapter 5, I present a discussion of the results, the contributions to research and practice, the limitations, and the opportunities for future research.

CHAPTER 2

BACKGROUND AND DEVELOPMENT OF HYPOTHESES

Fraud Risk and Formation of Initial Beliefs

Fraud Risk

The American Institute of Certified Public Accountants' (AICPA) Statement on Auditing Standard (SAS) 99, *Consideration of Fraud in a Financial Statement Audit*, specifically requires auditors to exercise professional skepticism, to discuss as a team areas of the financial statements that may be susceptible to fraud, to document the audit team's consideration of fraud, to evaluate the results of analytical procedures, and to make inquiries of management regarding the risk of material misstatement due to fraud (AICPA, 2002). Auditors have multiple pieces of evidence available to them to influence their fraud risk assessments. Auditors integrate five types of information: audit team communication, analytical procedures, risk factors, client inquiries, and other information (Arens, Elder, & Beasley, 2008). The auditors then use this information to assess a client's risk of material misstatement due to fraud.

Using the aforementioned sources of information, a preliminary fraud risk assessment is completed during the planning stage of an audit (Shelton, Whittington, & Landsittel, 2001). The fraud risks outlined by SAS 99 (AICPA, 2002) are based on the fraud triangle. The fraud triangle consists of three conditions that are commonly present when fraud is uncovered. First, incentive or pressure for client personnel to commit fraud may exist. Second, the opportunity to commit fraud typically exists. Third, rationalization or attitude representing the ability of entity personnel to commit a dishonest act may exist. Audit workpapers organize the fraud risk factors by the three components of the fraud risk triangle as presented in SAS 99. Audit teams must document their assessment of fraud risk and many do so using a fraud risk workpaper that lists the fraud risks outlined by Appendix A of SAS 99.

Fraud risk research has examined the effect of audit team communication on auditors' fraud risk judgments. Carpenter (2007) found that auditors' fraud risk assessments increased after team brainstorming sessions especially when fraud was present. Audit team discussions or brainstorming sessions are required by SAS 99 and, as evidenced by Carpenter's findings, increase the accuracy of auditors' fraud risk assessments.

Research on the use of analytical procedures for fraud risk assessment has focused on the effectiveness of the procedures in assessing risk. Knapp and Knapp (2001) instructed auditors to perform preliminary analytical procedures before completing a fraud risk assessment. Auditors with more experience (i.e., managers) assessed fraud risk at a higher level in the presence of fraud than those with less experience (i.e., seniors) (Knapp & Knapp). The results indicate that experience influences the accuracy of the fraud risk assessment.

Researchers' consideration of fraud risk in accounting has examined the effects of using a fraud risk questionnaire (Pincus, 1989). Previous research has examined the use of decision aids to assist auditors with fraud risk assessments. For example, Pincus found that auditors who used a red flags questionnaire considered a more comprehensive and uniform set of red flags than those who did not use a questionnaire, but the fraud risk assessment made by those using a red flags questionnaire was less accurate in the fraud condition than the one made by auditors not using a red flags questionnaire. Therefore, the use of a questionnaire was counterproductive.

Eining, Jones, and Loebbecke (1997) further the research on the use of decision aids in auditors' assessment of fraud risk by examining the use of expert systems and decision aids that provided suggested assessments. They found that auditors using the expert system with constructive dialogue (more user engagement) made decisions about subsequent audit actions that were more consistent with their assessment of audit risk than did those who used a decision aid that did not include constructive dialogue (the logit model). Auditors using a standard fraud risk assessment checklist were less effective at assessing fraud than those who did not use a standard checklist (Asare & Wright, 2004).

Researchers have considered auditors' attention to the different components of the fraud triangle. When auditors assess the three components of the fraud risk triangle (i.e., attitude, incentive, and opportunity risks) separately in their fraud risk assessment, their judgments are more sensitive to opportunity and incentive factors, but only when attitude factors suggest low fraud risk (Wilks & Zimbelman, 2004). Hackenbrack (1993) used a fraud risk related task to determine that "auditors assigned predominantly to the audits of large companies placed more emphasis on the opportunities than the auditors assigned predominantly to the audits of small companies" (p. 99).

Patterson and Noel (2003) examined auditors' fraud risk assessments in cases where the client may have committed different types of fraud, but they do not limit their examination to the opportunity to commit only fraudulent financial reporting. They found that, in the presence of opportunities for multiple types of fraud, auditors focus their audit plan on the type of fraud that management would most likely commit, such as the misappropriation of assets or fraudulent financial reporting.

Research has also found that auditors incorporate client inquiry evidence into their judgments of client personnel. Information provided by client personnel is valuable audit evidence that influences subsequent audit procedures and other audit judgments. Information gathered via client inquiry influences auditors' professional skepticism (Payne & Ramsey, 2005).

Payne and Ramsey examine the effects of fraud risk assessments and auditor experience on auditors' professional skepticism. They provided the results of a client inquiry, in summary format, to auditors and they found that auditors in the high fraud risk group were more skeptical than those in the control group to which no fraud risk information was provided. The results provide evidence that auditors incorporate fraud risk assessment information into their professional skepticism mindset and demonstrate the link between fraud risk assessments and judgments of client personnel.

The fraud risk assessment task has been used to examine other judgments auditors make during an audit. Bernardi (1994) examined the effects of differences in client integrity and competence on auditors' fraud risk assessments. Using a case based on an actual undetected fraud, Bernardi and Pincus (1996) examined the relationship between materiality thresholds and fraud risk judgments. They found that auditors' materiality judgments were not related to fraud risk judgments. Further research on audit judgments found that, in response to increased fraud risk, auditors will adjust the extent of their planned audit tests, but not the nature of the planned audit tests (Glover, Prawitt, Schultz, & Zimbelman, 2003). Further, using a fraud risk assessment task, Hoffman and Patton (1997) found auditors' judgments to be more conservative when they knew they would be held accountable for their judgment by their superiors.

The research considering auditors' fraud risk assessments indicates that auditors consider evidence from multiple sources in their fraud risk judgments. Research has shown that auditors' fraud risk assessments are influenced by audit team communication such as brainstorming (Carpenter, 2007), analytical procedures results (Knapp & Knapp, 2001), consideration of risk factors (Pincus, 1989) and client inquiry information. As information is gathered from different sources, auditors may revise their fraud risk assessments to reflect the effects of the new evidence. Though seniors and managers typically complete a fraud risk assessment during the planning stage of the audit, the fraud risk assessment is recognized as an iterative process that occurs throughout the audit (Arens, Elder, & Beasley, 2008). Therefore, the audit team may adjust an initial fraud risk assessment in light of evidence gathered during a later stage of the audit. Auditing research has recognized that evidence is gathered and processed by auditors using a sequential belief revision process where additional information is used to revise auditors' initial beliefs as the audit progresses (Gibbons, 1984). Thus, auditors may use a belief revision process to update the fraud risk assessment to incorporate new information gathered from a client.

Belief Adjustment Model

Accounting research on belief revision has used the belief adjustment model (Einhorn & Hogarth, 1981; Hogarth & Einhorn, 1992) as a theoretical framework (Kahle, Pinsker, & Pennington, 2005). Belief revision refers to the extent to which an individual revises his/her belief in "light of new evidence" (Nöteberg, 2004, p. 7). The timeframe of a typical audit allows the auditor's revised belief to be integrated into future audit decisions. Figure 1 illustrates the process by which auditors may integrate evidence gathered via client inquiry during the fraud risk assessment. Auditors may have initial client information including background information, unaudited financial statements, preliminary analytical procedure results and a listing of fraud risk factors or a fraud risk assessment. They use this information to form an initial belief about the client's overall fraud risk. To better understand the events behind the financial statement numbers, the auditors may then seek information via a client inquiry with financial personnel. The information provided by financial personnel will be integrated into the auditors' revised fraud risk assessment and initial truthfulness judgments of financial personnel. SAS 99 directs auditors to seek corroborating evidence from other personnel such as operating personnel. Evidence provided by operating personnel may be consistent or inconsistent with the evidence provided by financial personnel. The fraud risk assessment and deception judgments are then revised to incorporate the information provided by operating personnel. In summary, the fraud risk assessment is an iterative process in which auditors use new audit evidence to revise their beliefs.

Within the context of belief revision, researchers have considered the effects of evidence consistency on auditors' beliefs in an audit context (Asare, 1992; Ashton & Ashton, 1988; Caster & Pincus, 1996; Goodwin, 1999; Messier, 1992; Messier & Tubbs, 1994; Tubbs, Messier, & Knechel, 1990; Pei, Reed & Koch, 1992). Research on evidence consistency has found that "auditors' beliefs are strengthened on receiving a second piece of consistent evidence" (Goodwin, 1999, p. 4). Tubbs, Messier and Knechel (1990) found support for the recency effect when audit evidence is mixed, but not when evidence is consistent. Further, auditing research has found support for recency effects predicted by the belief adjustment model (Asare, 1992). Caster and Pincus (1996) presented audit seniors with cases that included positive consistent evidence, negative consistent evidence and a mix of positive and negative evidence. They found that auditors were more likely to revise their beliefs in light of inconsistent (negative) evidence than in response to positive (confirming) evidence. Based on the results of prior research, auditors are sensitive to inconsistent audit evidence.

In this study, the type of evidence available to the auditors is similar to that which would be available on an actual audit client. By providing audit evidence that would typically be collected prior to the client inquiry and holding constant the amount of evidence provided by the client inquiry (each client inquiry provides similar information on the same issues), I can measure the sequential process that will result in auditors' revised beliefs.

Initial Fraud Risk Assessment Judgment

To complete a preliminary fraud risk assessment, auditors access audit evidence such as unaudited financial statements, an assessment of fraud risk factors present, and results from analytical procedures. They then form an initial fraud risk belief about the client by integrating different pieces of audit evidence from different sources. In the belief adjustment model, the formation of an initial belief represents the original anchor from which auditors revise their opinions in light of new audit evidence.

As previously stated, auditors consider information from sources such as audit team communication, analytical procedures, risk factors, and client inquiry in their fraud risk assessments. One type of audit evidence is the results of analytical procedures that are computed based on unaudited financial statement numbers provided by management. The results of analytical procedures based on a client's initial financial statement numbers influences an auditor's fraud risk assessment. Knapp and Knapp (2001) found that auditors who were given specific instructions to complete analytical procedures with the intent to assess the risk of fraud, assessed fraud risk at a higher level when fraud was present than did those auditors who did not receive specific instructions to consider fraud risk while conducting analytical procedures and considering the results. In the presence of fraud, red flags found in analytical procedures results help to increase fraud risk assessment judgments. Research on fraud risk factors has found that auditors who use a red flag questionnaire or standard fraud risk checklist do not assess risk as effectively as those who do not use such decision aids (Asare & Wright, 2004; Pincus, 1989); I do not ask participants to complete such a checklist. Rather I provide a listing of relevant risk factors for the client. After consideration of initial audit evidence including analytical procedures results and fraud risk factors, I measure auditors' fraud risk assessments to determine a baseline measure for comparison to subsequent fraud risk assessments after additional audit evidence is presented.

Client Inquiry, Deception, and Fraud Risk Assessment Revision

Client Inquiry and SAS 99

After examining initial information for a client, auditors may interview entity personnel to collect audit evidence. In an audit client inquiry the auditor may pose a series of questions to client personnel (e.g., management, audit committee, internal auditors) to gather information to be used as audit evidence. Client inquiry occurs frequently throughout an audit (Ariail & Blair, 2007) and is a key source of audit evidence. It may be used to clarify unexpected results or to gather information about the client's business environment (Nöteberg, Hunton, & Gomaa, 2007). As noted in AU Section 326.31 (AICPA, 2007), auditors make inquiries, both formal and informal throughout the course of an audit (Ariail & Blair) and auditors' dependence on this technique for gathering information is expected to increase (Comunale, Sexton, & Gara, 2003).

Prior research has examined different aspects of client inquiry such as the extent to which auditors incorporate client inquiry results into their audit judgments (Haynes, 1999), auditors' ability to detect deception during client inquiry (Lee & Welker, 2007), and auditors' belief revision based on information obtained via client inquiry (Nöteberg et al., 2007). Auditors' revision of their initial belief represents the incorporation of information gathered via client inquiry into auditor judgment. Although the use of this information demonstrates auditors' willingness to recognize the value of client inquiry results, one cannot conclude that auditors are recognizing the full value of the evidence.

Haynes (1999) examined auditors' use of information gained through client inquiry. She maintained that although auditors perceive information received from management via client inquiry as less reliable than that which is "provided by an independent third party" (Haynes, p. 87; Hirst 1994; Joyce & Biddle, 1981), auditors must also recognize the value of the information that can be gathered from this source. In her study, she found that evidence provided by management inquiry had less of an impact on auditors' beliefs than on non-auditors' beliefs. This finding suggests that auditors may not value evidence from management inquiry appropriately.

Auditors' uncertainty as to how to value evidence provided by management inquiry is exacerbated by management's relationship with the components of the fraud triangle. Of the three components of the fraud triangle (opportunity, incentive/pressure, and rationalization/attitude) management has the highest level of opportunity and incentive/pressure to commit fraud that would materially affect the financial statements. SAS 99 (AICPA, 2002) specifically recognizes management's favorable position to commit fraud. SAS 99 states:

> Management has a unique ability to perpetrate fraud because it frequently is in a position to directly or indirectly manipulate accounting records and present fraudulent financial information. Fraudulent financial reporting often involves management override of controls that otherwise may appear to be operating effectively (AICPA, 2002, p. 281).

Auditors must evaluate client responses to inquiries (AU Sec. 326.31, 2007) and make a judgment regarding the validity of management's response, as well as a judgment about the degree of utilization of the information gathered, to inform subsequent audit procedures. For an effective audit, the auditor must not over rely on the evidence gathered via management inquiry; however, for an efficient audit, the auditor must not ignore the value of the evidence gathered via management inquiry (Haynes, 1999). "The interim standards provide little direction to help auditors determine what or how much they should do to corroborate management's responses" (Public Company Accounting Oversight Board (PCAOB), 2006, p. 8); therefore, auditors may not be clear about the extent to which they can rely on management's responses to inquiry.

Auditing guidance for fraud detection focuses on the use of information and audit evidence to detect deception associated with fraud. Management involved with fraud has an incentive to provide deceptive information to an auditor with the intent to cover the fraud. The client inquiry process provides access to deceptive information from management including possible deception cues. Recognizing this, SAS 99 (AICPA, 2002) directs auditors to consider red flags such as inconsistency, vagueness, and implausibility of inquiry responses when interviewing entity personnel.

Source Credibility

Based on persuasion research in psychology and other fields such as marketing, information provided by a highly credible source is rated as more believable and truthful than information from a low credibility source (Pornpitakpan, 2004). The highly credible source has been found to be more persuasive than a low credibility one. Credibility has been argued to have four dimensions which include competence, trustworthiness, objectivity (Kaplan, O'Donnell & Arel, 2008), and linguistic delivery style (Comunale, Sexton, & Sincich, 2005), and each of the dimensions of credibility have been shown to have multiple facets (Kenton, 1989) including position of leadership, sincerity, expertise and similarity between source and receiver. Traditionally, researchers have identified expertise and trustworthiness as the two primary dimensions of source credibility (Hovland, Janis, & Kelley, 1953; Miller 1987; Pornpitakpan). Source credibility theory predicts that as the credibility of a source increases, so too does an individual's willingness to rely on the information provided by that source.

During an audit, auditors initially seek information from sources perceived as highly credible such as financial personnel (e.g., the chief financial officer or a divisional controller). Prior research in accounting has used source credibility theory and persuasion to examine the influence of source credibility, including management integrity (i.e. trustworthiness) and source competence (i.e. expertise), on auditors' judgments and use of audit evidence (Anderson, Koonce, & Marchant, 1994; Bamber, 1983; Beaulieu, 2001; Bernardi, 1997; Goodwin, 1999; Hirst, 1994; Jenkins & Haynes, 2003; Kizirian, Mayhew, & Sneathen, 2005; Peecher, 1996). In audit research, "the consistent theme…is that less reliable information should be weighted less in the auditor's judgment process than information that is more reliable" (Kizirian, et al., p. 53).

An auditor's judgment of source credibility can affect multiple tasks and stages of the audit. For example, an auditor's judgment of source credibility affects his/her acceptance of the source's responses during a client inquiry (Nöteberg, et al., 2007). Source credibility should be explicitly considered by the auditor when gathering audit evidence via client inquiry. SAS 99 recognizes that the reliability of client inquiry results should be evaluated on different factors, including dimensions of credibility (such as the position of the interviewee) and the expertise of the interviewee (AICPA, 2002; Ariail & Blair, 2007). Therefore, auditors are likely to seek information from a person in a management position because management typically has a high level of financial expertise and has direct control over financial reporting.

Results on the ability of management to persuade auditors have been mixed. Jenkins and Haynes (2003) found that auditors' evaluation of persuasive evidence was not affected by source credibility. Kaplan, O'Donnell, and Arel (2008) found that auditors with less experience were influenced more by evidence provided by management than auditors with more experience. Though management is not considered an objective source of information (Kaplan, O'Donnell,

& Arel), auditors' persuasion knowledge may not be activated until a clear attempt at persuasion is made. I expect to find that auditors will initially believe information provided by a credible source such as management and will significantly decrease their fraud risk assessments; thereby demonstrating that deception by management can effectively decrease auditors' fraud risk assessments.

Additionally, in light of the belief adjustment model, I expect to find that auditors in the fraud condition will view the information provided by management as a confirmation (i.e. consistent evidence) of the information provided in the client background, preliminary financial statements, and analytical procedure results. By providing information that appears truthful by way of consistency, management may confirm auditors' belief that the company had a successful year and thereby, lower auditors' perception of fraud risk. I use a fraud risk assessment task to examine the impact of deception by client personnel on auditors' judgment. I expect to find that auditors will not be able to detect deception in initial client inquiries, and, consequently, their judgments will be influenced by the information provided by a credible source (e.g. management) even when that information is deceptive. Therefore, auditors in the fraud condition will revise initial fraud risk assessments to incorporate the deceptive information as truthful. Based on the deceptive information provided by financial personnel, auditors will decrease their initial fraud risk assessments. In doing so, I expect that the deceptive information provided by financial personnel will effectively lower the fraud risk assessments in the presence of fraud to a level equal to that of the fraud risk assessments completed in the absence of fraud.

> H1a: When client inquiry information is provided by credible sources (e.g., the CFO and the divisional controller), auditors' fraud risk assessments will not differ significantly between the presence of fraud and absence of fraud conditions.

Deception and Assessing Client Truthfulness

Previous research on deception has focused on identifying affective cues that may be used by the receiver to recognize when the sender of a message was not telling the truth (DePaulo, Lindsay, Malone, Muhlenbruck, Charlton, & Cooper, 2003; Ekman & Friesen, 1972; Riggio & Friedman, 1983; Vrij & Mann, 2004). These cues include fidgeting, using less eye contact, sounding “unpleasant,” greater pupil dilation, increased blinking, more frequent speech disturbances, higher pitch (Zuckerman, DePaulo, & Rosenthal, 1981), a decrease in hand and finger movements, and an increase in “micro-expressions” or small facial movements done unconsciously (Ekman & Friesen). Further, liars may be less cooperative and less pleasant (Vrij & Mann). Consistent support has not been found for any one set of nonverbal behaviors that indicate deception; even the common assumption that lack of eye contact indicates deception does not always hold (Sporer & Schwandt, 2007). Therefore, deception research has examined both verbal and nonverbal cues present in deceptive communication. Additionally, Ariail and Blair (2007) note that no single cue indicates deception, but that auditors should consider multiple cues to judge deception including information gathered outside of the initial communication to determine if deception occurred.

Properly assessing client truthfulness by uncovering deception is crucial for auditors to reduce the risk of audit failure and the risk of setting detection risk at an inappropriately low level. To date, five studies in auditing research directly focus on detecting deception in auditing: Roberts (1995), Lee (2000), Lee and Welker (2007), Ariail and Blair (2007), and Lee and Welker (2008).

Roberts (1995) provided 60 Big Six auditors with prior year information and other company information before testing their ability to detect deception and their response to deception, in terms of audit hours planned, using a taped interview and transcript interview format. Her experiment resulted in a 66.4% deception detection accuracy rate with written transcript and audio tape and a 61.4% deception detection accuracy rate when only a written transcript was provided; therefore, using additional evidence along with client inquiry evidence, auditors detected deception at a rate statistically significantly better than that which would be expected by chance (i.e., 50 percent). Further, they found that auditors who judged client responses as deceptive responded by planning more audit hours in the current year's audit plan. Though the participants in this study were able to detect some deception, participants in other deception studies have not done as well.

Lee (2000) and Lee and Welker (2007) examined auditors' ability to detect deception. In a task that used students as proxies for entry-level auditors, participants were asked to evaluate the truthfulness of an interviewee. The researchers made 20 videotapes of 10 truth-tellers and 10 deceivers using a property valuation task. Interviewees were given a property description and valuation listing then shown pictures that were consistent or inconsistent with the value listed. Interviewees were questioned by an interviewer about the condition of the property. Participants (120 accounting students) were shown the videotapes at three different levels (representation only, inquiry and inquiry with repeated questions) and asked to evaluate if the interviewee was telling the truth. Participants reported a high level of confidence in their deception detection decisions. However, Lee (2000) and Lee and Welker (2007) found that participants did not detect deception at a rate higher than that which would be expected by chance. Additionally, participants did not detect deception better when they viewed an inquiry than when they only viewed the representations portion, which consisted of only yes/no questions. Participants were not better at detecting deception in an inquiry with repeated questions. Even when participants reported a high level of confidence in their deception detection decisions, they did not detect deception at a rate better than that which would be expected by chance or greater than 50 percent (Lee & Welker).

Extending Lee (2000), Lee and Welker (2007) also consider the effect of training on participants' ability to detect deceptive information. In a second experiment, senior-level accounting students received ACFE training prior to viewing the tapes. Training did increase participants' ability to accurately identify a deceiver; however, the effect was not statistically significant. Therefore, the result of the experiment was that participants did not detect deception better with fraud training.

Ariail and Blair (2007) reviewed deception literature from the fields of psychology and auditing and outlined six guidelines that may assist auditors in detecting deception. They note the value of open-ended questioning and they emphasize the need for auditors to be attentive to what is said rather than how it is said or what nonverbal behaviors are exhibited during the interview. Because nonverbal cues are not consistent and reliable as deception indicators, Ariail and Blair suggest that auditors use corroborating evidence to detect deception.

However, deception research in auditing has continued to investigate nonverbal behaviors associated with deception. Using two experiments, Lee and Welker (2008) identify behaviors that auditors use to detect deception. In the first experiment, 110 junior and senior level accounting students were provided with a list of behaviors and after viewing a videotape of either an interviewee telling the truth or not telling the truth, the participants identified the extent to which the interviewee in the video displayed the behaviors on the list. Using factor analysis, the authors classified the behaviors identified into the following six characteristics:

informativeness, relational anomalies, brevity of responses, body movement, reflexive behaviors, and anxiety behaviors.

In the second experiment, auditors with at least two years of auditing experience viewed the same videos presented in experiment 1 and were asked to evaluate the interviewee as being deceitful or truth-telling. Further, the auditors were asked to provide the level of confidence they had in their evaluation of the interviewee. Similar to experiment 1, the auditors were asked to rate the degree to which the interviewee displayed certain behaviors. The participants were provided with a list of 26 behaviors and the researchers found that auditors were suspicious of the interviewee's responses when the response was perceived to be low in informativeness. Further, participants were more suspicious when the participant perceived that the interviewee exhibited an excessive amount of body movement. In fact, people who are not telling the truth tend to control their behaviors and present a controlled image (Lee & Welker, 2008). Therefore, Lee and Welker (2008) demonstrate that while auditors incorporate physical cues to deception into their decision making process, they may not correctly interpret the cues.

I extend the literature on deception in auditing by incorporating audit evidence gathered after the initial client inquiry. As directed by SAS 99, auditors collect corroborating evidence with which to triangulate their judgments and revise initial beliefs regarding information gathered during initial client inquiries. Prior research has measured auditors' ability to detect deception immediately following the initial inquiry. I measure auditors' assessments of the truthfulness of client personnel at two points in the study, immediately following the deceptive communication and following the review of additional audit evidence. The richness of the audit environment affords auditors the opportunity to revise judgments based on multiple pieces of audit evidence. Though prior research has manipulated the amount of evidence available to the auditor for use in making a truthfulness (deception) judgment (Lee & Welker 2007), participants were not asked to provide judgments at multiple points as auditors would be during an audit. Therefore, I will contribute to the deception literature in auditing by incorporating belief revision and examining the effects of evidence consistency.

Prior to receiving nonverbal cues and client inquiry audit evidence, auditors typically have access to company background information and unaudited financial statements. Though this information may contain misstatements, deception by client personnel does not occur until auditors collect information through client inquiry via written or oral communication modes. Because initial deceptive evidence may be consistent with the client's unaudited financial information, the deceptive evidence collected via client inquiry may confirm an auditor's belief that the client performed at the level indicated by the financial statements. When an individual receives information that is consistent with prior information received, the belief adjustment model predicts that the individual will positively revise his belief in the direction supported by the subsequent piece of consistent information (Kahle, Pinsker, & Pennington, 2005). In this case, deceptive information received from the client inquiry may be considered corroborating evidence for the misstated financial performance of the client. As the initial deceptive information received from the client inquiry is consistent with the misstated financial performance of the client, an auditor may judge the truthfulness of client personnel as high until he seeks other audit evidence from an additional client source who is not involved with the fraudulent activity. Therefore, based on auditors' inability to properly assess client truthfulness as noted by previous deception research and the initial presentation of only consistent information, I expect to find that auditors will judge the initial client inquiry information provided as truthful regardless of whether fraud exists in the case.

H1b: In the presence of fraud, auditors' initial truthfulness judgments of financial personnel (e.g., the CFO and divisional controller) will not differ significantly from auditors' truthfulness judgments in the absence of fraud.

Additional Audit Evidence

Collecting Corroborating Evidence

In an auditing context, collecting evidence used to judge a communication does not stop with the initial communication. SAS 99 states that an auditor should seek corroborating evidence from others within the entity (AICPA, 2002) including both financial and nonfinancial personnel. Auditors collect such evidence in an effort to corroborate management's responses. The decision to collect further evidence may hinge on the consistency and plausibility of the information gathered to date.

Auditors have the option to collect audit evidence from others within the entity who do not have direct control over financial reporting, (i.e., non-financial personnel). SAS 99 notes that inquiries made of others within the entity who are not involved in the financial reporting process may serve to corroborate management's response to inquiries or cast doubt on them. Further, SAS 99 maintains that making inquiries of other personnel may give them the opportunity to report information that would otherwise not be collected from those who are involved in the financial reporting process (AICPA, 2002). Specifically, in the case of fraud, those personnel not involved with the financial reporting process may provide information that is inconsistent with that information which was provided by those most likely to perpetrate a fraudulent act. For example, to verify sales, an auditor may speak with the warehouse manager to verify that goods had been shipped.

Evidence Inconsistency

Prior audit research on belief revision found that auditors responded more strongly to disconfirming evidence than to confirming evidence (Ashton & Ashton, 1990; Kahle, Pinsker, & Pennington, 2005; McMillan & White, 1993). Inconsistent evidence impacts auditors' judgments more when the consideration of such evidence results in a more conservative audit judgment (i.e., a judgment that would be more likely to result in more conservative financial statements) (Goodwin, 1999).

Prior audit research has considered the effects of source integrity and evidence consistency on auditors' judgments (Goodwin, 1999). Significant results were found for the effect of integrity on auditors' judgments, but not for the consistency of evidence. Goodwin's (1999) lack of significant results was surprising given that the belief adjustment model predicts that in the step-by-step processing of mixed (inconsistent) evidence participants will exhibit a recency effect (Kahle, Pinsker, & Pennington, 2005). The lack of results may be explained by a research design issue. According to Goodwin, the participants may not have viewed the inconsistent evidence presented in the scenario as actual evidence; rather, they may have interpreted the additional evidence as simply noise in the case due to the informality with which it was presented.

Other audit research found recency effects present in auditors' judgments (Ashton & Ashton, 1988, Caster & Pincus, 1996). Therefore, the recency predictions of the belief adjustment model are expected to affect auditors' belief revision in the presence of fraud when inconsistent or mixed evidence is presented. Caster and Pincus (1996) found that auditors are more likely to adjust their beliefs in light of negative evidence than positive evidence. When negative evidence is received, auditors adjust their belief to integrate the new information. In light of negative (disconfirming) evidence, auditors revise their beliefs more so than they do in the presence of consistent evidence (Ashton & Ashton, 1990).

SAS 99 directs auditors to seek corroborating evidence when they consider the information gathered via client inquiry with management. SAS 99 suggests gathering evidence from nonfinancial or operating personnel to corroborate information provided by management. If the other client personnel provide information that is not consistent with the information provided by management, then an auditor should revise the original fraud risk assessment as this may indicate the presence of fraud. I expect to find significant belief revisions when auditors view information that is inconsistent between two client sources. In response to inconsistent information presented in the presence of fraud, auditors should make more conservative audit judgments (i.e. higher fraud risk assessments).

H2a: In the presence of fraud, auditors will significantly increase their fraud risk assessments after the presentation of inconsistent audit evidence from operating personnel.

During an audit, auditors may collect multiple pieces of audit evidence that serve to confirm or disconfirm a belief. Although auditors may not immediately be able to judge the truthfulness of the client with complete certainty, auditors have the opportunity to continue to collect evidence and reevaluate their initial judgments at a later point in the audit. Auditors are in a position to revise initial beliefs regarding the truthfulness of a communication after subsequently gathered communications and evidence are reviewed and integrated into the auditor's belief.

If the client is not telling the truth and fraud is present, it is likely that at some point in the audit, inconsistent audit evidence will arise. Auditors revise their beliefs to incorporate information gathered from subsequent audit procedures such as further client inquiries. Prior audit research in deception has considered auditors' ability to accurately judge client truthfulness immediately following the communication of deceptive information, but the effects of information gathered subsequent to the initial deception on auditors' ability to accurately judge client truthfulness has not been examined. Auditors should be able to accurately judge client truthfulness when inconsistent evidence is presented subsequent to the initial client inquiry. Based on auditors' access to inconsistent evidence gathered after the initial client inquiry, I expect to find that auditors' will evaluate the truthfulness of the deceptive financial personnel (CFO and divisional controller) in the fraud condition lower than that of the truthful financial personnel (CFO and divisional controller) in the no fraud condition.

H2b: Auditors' final truthfulness judgments of financial personnel (e.g., the CFO and the divisional controller) will be lower in the presence of fraud than in the absence of fraud.

Prior research has found that given certain circumstances, such as management's intent to influence the auditor's judgment, a difference in source credibility does not affect auditor judgment (Jenkins & Haynes, 2003). In the presence of fraud committed by management, management's intent would be to influence the auditor's judgment. I expect that in the presence of fraud (i.e., inconsistent information), auditors' will revise their prior trustworthiness, reliability, and truthfulness beliefs about financial personnel. Therefore, I expect to find that evidence gathered in the presence of fraud (i.e. inconsistent information) will affect auditors' judgments of trustworthiness, reliability, and truthfulness of financial personnel differently than evidence gathered in the absence of fraud (i.e. consistent information).

H2c: In the presence of fraud, auditors will significantly revise their trustworthiness, reliability, and truthfulness assessments of financial personnel (e.g., the CFO and the divisional controller) after inconsistent information is reviewed.

H2d: In the presence of fraud, auditors' final trustworthiness and reliability assessments of financial personnel (e.g., the CFO and the divisional controller) will be lower than those made in the absence of fraud.

Characteristic of the Source of Corroborating Evidence

SAS 99 notes that in addition to speaking with financial personnel, auditors should speak with operating personnel who are not directly involved with the financial reporting process such as those with responsibility over the custody of assets. The information gathered from operating personnel may serve to corroborate or disconfirm that which has been provided by management. SAS 99 does not provide specific guidance on the relative value of information gathered from operating personnel. However, SAS 99 does instruct auditors to consider characteristics of the source of corroborating evidence such as level of authority, understanding of the entity's internal control system, and involvement in the financial reporting process (AICPA, 2002). Auditors may gather evidence from personnel in the entity with varying levels of experience.

Auditing research on assessing truthfulness and detecting deception has not examined the characteristics of the source of corroborating or disconfirming information on auditors' revisions of truthfulness assessments and fraud risk assessments. In this study, I distinguish between a warehouse manager with a higher level of experience and a warehouse manager with a lower level of experience thereby, examining the effects of source experience level differences on auditors' judgments. A warehouse manager with a higher level of experience may have more familiarity with his role than a warehouse manager with a lower level of experience, therefore, I expect to find that evidence provided by a source with a higher level of experience will influence auditors' judgments to a greater extent than evidence provided by a source with a lower level of experience.

H2e: Auditors will revise their fraud risk assessments to a greater extent in the presence of information provided by a highly experienced warehouse manager than information provided by a less experienced warehouse manager.

H2f: Auditors will revise their trustworthiness, reliability and truthfulness assessments of financial personnel to a greater extent in the presence of a highly experienced warehouse manager than in the presence of a less experienced warehouse manager.

H2g: Information provided by a highly experienced warehouse manager will influence auditors' fraud risk assessments more than information provided by a less experienced warehouse manager.

CHAPTER 3

RESEARCH METHOD

Behavioral research on auditing and the audit environment commonly utilizes an experimental approach. "The great advantage of the experiment is that it allows us to determine causality" (Whitley, 2002, p. 36) because of the high degree of control the researcher has over the situation. In this study, the experiment uses an audit task to gain better insight into the auditor's judgment and decision-making process. I chose an experimental approach because I sought to capture an aspect of the individual's (auditor's) decision process of integrating information provided by client personnel into the individual's (auditor's) judgment regarding fraud risk, trustworthiness, reliability, and truthfulness. Research on judgment modeling, specifically that which considers "individuals' utilization of information" (Ashton, 1982, p. 13), is often conducted in an experimental setting.

Participants

The participants required for this study were experienced auditors at accounting firms located in the United States. Previous researchers have used senior auditors and managers as participants when a fraud risk assessment is required (Bernardi, 1994; Knapp & Knapp, 2001; Wilks & Zimbelman, 2004). Although Hoffman and Patton (1997) did not specifically use senior auditors, they collected their data from participants at an Advanced In-Charge auditor training session. The participants had an average of 3.2 years of experience. Further, Asare and Wright (2004) used auditors with an average of 9.7 years of experience. The experience level of the participants in each of these studies indicates a knowledge level of a senior auditor or higher. Further, a survey by Abdolmohammadi (1999) indicated that an assessment of risk is typically completed by a manager assigned to the audit engagement. Therefore, to appropriately match the task with the participants, I used primarily seniors and managers.

I recruited 64 auditors with an average of 10.8 years of experience from several different accounting firms to participate. Prior research has noted that using auditors from several firms will help "reduce the effects that one firm's specific training on the detection of fraudulent financial reporting may have on the results" (Braun, 2000, pg. 249; Cushing & Loebbecke, 1986). The participants were asked to complete an electronically delivered packet and evaluate the risk of fraud, the likelihood that the communication from client personnel was truthful, and the trustworthiness and reliability of the client personnel.

Design

The experimental design was a 2 X 2 factorial design using simple random assignment (Whitley, 2002). The first independent variable was presence of fraud. Participants received a case that either contained fraud or did not contain fraud. I also examined the effects of the level of experience of the operating personnel (i.e., the warehouse manager) operationalized at two levels, higher level of experience (i.e., 12 years), and lower level of experience (i.e., two years) on auditors' judgments. The independent variables of presence of fraud and level of experience of the operating personnel were between-participants variables.

Case Materials and Procedures

Client Information and Evaluation Task 1

To construct the fraud and no fraud cases, I relied on a method used in prior research (Asare & Wright, 2004; Carpenter, 2007). The fraud case was constructed based on the original report of the fraudulent results released by a video game developer/manufacturer. I used an Accounting and Auditing Enforcement Release (AAER) to identify the company as having committed fraud. The company had improperly recognized revenue. The video game company engaged in a parking transaction in which they shipped product to a customer and recorded the sale. Company management (i.e., financial personnel who were responsible for recordkeeping) organized the parking transaction with the customer prior to year end. The customer held the product with the understanding that the company would take it back shortly after year end. According to the AAER, the CFO and other management personnel disguised the return as a purchase of inventory rather than a return of the goods. Warehouse personnel were instructed to record the receipt of the product as "assorted product" rather than recording the specific video game titles and quantities.

In this study, the use of a real fraud case has two main advantages. As noted by Carpenter (2007), "the fraud and no fraud financial statements provide a benchmark for evaluating auditor effectiveness in assessing the risk of fraud" (p. 1126). Further, prior research recognizes that a key to enhancing the external validity of the case is to use financial statements filed by actual companies (Carpenter; Knapp & Knapp, 2001; Nieschwietz, Schultz, & Zimbelman, 2000; Pincus, 1989).

First, participants were presented with background information about the company, including a company description, the income statement, and balance sheet. The background information from the case was derived from actual information about the company from which the financial statements were used and background information used in prior research to give an overall neutral impression of the company. The income statement and balance sheet include prior year and current year amounts.

Next, the participants viewed the results of selected analytical procedures. The income statement and balance sheet presented included the percent change from the prior year for each account. To follow, I presented the common size income statement and balance sheet. The participants then viewed a comparison of the actual results for the year to the budgeted amounts. Next, the participants viewed additional analytical procedures in the form of a selected set of key ratio calculations based on the income statement and balance sheet amounts. The analytical procedures were presented in a workpaper format that was adopted from an actual workpaper currently used by a Big-4 accounting firm.

The participants were presented with a fraud risk assessment workpaper that detailed the fraud risk factors that were present for this client. The fraud risk factors were presented by the three components that comprise the fraud triangle: incentive/pressure, opportunities, and attitudes/rationalization (AICPA, 2002). The fraud risk assessment workpapers of two accounting firms, both in the top eight, were integrated to present a non-firm specific fraud risk assessment workpaper. The fraud risk assessment workpapers included in the cases noted risk factors present in the company. The factors were identified by information provided in the AAER and the litigation release. The fraud risk factors identified were held constant between the fraud and no fraud conditions.

Although the fraud condition was based on an actual fraud case, the information contained in the first part of the case did not provide definitive evidence for the auditor to determine that fraud occurred. Definitive evidence indicative of fraud was not provided in the initial audit evidence because in the actual case the auditors failed to detect the fraud. The auditors must integrate information provided throughout the audit to uncover the fraud. Case 1 (Fraud, higher level of experience) is provided in Appendix A. Case 2 (No fraud, higher level of experience) is provided in Appendix B. Case 3 (Fraud, lower level of experience) is provided in Appendix C. Case 4 (No fraud, lower level of experience) is provided in Appendix D.

After the participants viewed the company background information, selected analytical procedures results and the fraud risk factors, they were asked to form an initial belief about the fraud risk associated with this client. Auditors evaluated the three attributes of risk of material misstatement due to fraud as outlined in SAS 99; that is, auditors responded to the significance of the risk (0 = Highly insignificant; 10 = Highly significant), likelihood of the risk (0 = Extremely unlikely; 10 = Extremely likely) and pervasiveness of the risk (0 = Extremely non-pervasive; 10 = Extremely pervasive). The three evaluation tasks in the instrument included an assessment of each attribute of risk. The participants were asked to evaluate the likelihood that the risk of fraud will result in a material misstatement in the financial statements. They were then asked to evaluate the significance of the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements. To complete the assessment of fraud risk, the participants were asked to evaluate the pervasiveness of the potential risk of material misstatement due to fraud.[1] I asked participants to evaluate each of the three attributes of fraud risk to capture a comprehensive evaluation of fraud risk using scales consistent with Carpenter (2007). Further, participants were asked to evaluate the client's business risk (0 = Extremely low; 10 = Extremely high). Business risk is the risk that the entity's business objectives will not be met (Arens, Elder, & Beasley, 2008). The level of business risk is a result of the consideration of external and internal factors, and pressures. The factors considered in the fraud risk assessment represent risk factors that affect overall client business risk. Managing fraud risk is a component of managing overall enterprise risk (IIA, AICPA, & ACFE, 2008). Because the client business risk measure represents an overall measure of risk, as fraud risk

[1]Extremely pervasive risk affects the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness decreases as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all (AICPA, 2002).

increases so should client business risk; therefore participants were asked to evaluate business risk. Finally, participants were asked to document the evidence they used to arrive at their fraud risk judgment.

Financial Personnel Client Inquiry and Evaluation Task 2

After recording their initial fraud risk assessment and business risk judgments, the auditors were presented with dialogue from financial personnel[2] (e.g. the CFO and the divisional controller). I used a technique similar to the one used in Bhattacharjee and Moreno (2002) to develop the client dialogues. The dialogue was written in the first-person voice to enhance the auditor's ability to view it as a true conversation. The dialogue with the CFO and the divisional controller was kept constant between the cases. These financial personnel provided some general information about the client, market conditions, incentive programs, company procedures and information about the largest sale of the year. This information is typical of the type of information received from financial personnel in the course of an initial client inquiry. In the fraud case, the largest sale of the year was a parking transaction, while in the no fraud case, the sale was legitimate. To complete the parking transaction, the audit client arranged for a customer to accept a shipment of product with the understanding that the shipment would be returned shortly after year end. To cover the transaction, financial personnel recorded the shipment as a sale and disguised the return of the shipment as a purchase of inventory rather than a return of goods. Therefore, the information about the largest sale of the year provided by the CFO and the divisional controller was not truthful in the fraud case. In the no fraud case, the information provided by the CFO and the divisional controller was truthful because the sale occurred and there was no return of product.

[2] All client personnel were given fictitious names.

After reading the narratives, the auditor was asked to repeat his fraud risk assessment and business risk assessment judgments. Further, using an 11 point scale, the participant was asked to assess the trustworthiness (0 = Strongly disagree; 10 = Strongly agree), reliability (0 = Strongly disagree; 10 = Strongly agree), and truthfulness of the CFO and the divisional controller. To measure truthfulness, I asked participants to evaluate the likelihood that the information provided by each source was not truthful (0 = Extremely unlikely; 10 = Extremely likely). I negatively worded the truthfulness assessment to help prevent response bias (Pallant, 2007). Participants that were able to properly assess truthfulness should rate the likelihood that the information was not truthful at a higher level on the scale than those who were unable to detect the deception. This captures participants' ability to judge the truthfulness of information received from the client personnel. Finally, using an open ended format, participants were asked to provide a listing of audit evidence they considered in their fraud risk assessment after reading the dialogue of the client inquiries with financial personnel (e.g. the CFO and divisional controller).

Operating Personnel and Evaluation Task 3

Thereafter, a second client dialogue was presented. The auditor viewed a dialogue with the warehouse manager, who had either a higher level of experience or a lower level of experience. Participants in the lower experience condition received a description of a warehouse manager with two years of experience who was described as having limited experience; whereas, participants in the higher experience condition received information from a warehouse manager with 12 years of experience who was noted as having extensive experience. In creating the descriptions of the warehouse managers, I addressed the operationalization of the level of experience of the warehouse manager by describing his experience using both quantitative (in years) and qualitative (extensive versus limited) terms. Describing the warehouse manager's experience level using these two aspects allowed for the clear manipulation of the level of experience. The descriptions clearly portrayed one warehouse manager as having a higher level of experience than the other. See Appendix E to review the descriptions of the warehouse manager by condition. Separation of duties is a control activity used by firms to prevent fraud. Firms must separate recordkeeping, authorization and custody of assets. Financial personnel are responsible for recordkeeping duties and a warehouse manager is responsible for the custody of the inventory. By providing client dialogue with financial personnel in charge of recordkeeping and the warehouse manager with a responsibility for the custody of inventory, I presented two of the three components of the separation of duties control activity. SAS 99 requires the auditor to analyze the information received from nonfinancial personnel, such as a warehouse manager, for any inconsistencies with other audit evidence collected that may indicate fraud. Management's attempt to deceive an auditor should be uncovered by collecting information from operating personnel who are not colluding with management to commit fraud. Therefore, I presented deception in a way that was consistent with an audit environment in which fraud was present, by providing inconsistent audit evidence via operating personnel responsible for custody of an asset. In the fraud condition, the evidence provided by the second client inquiry was inconsistent with that which was provided by the first client inquiries with Tom Johnson, the CFO, and Larry Smith, the divisional controller. In the no fraud condition, the evidence provided by the second client inquiry was consistent with information provided by financial personnel and therefore, corroborated the information provided via client inquiry.

For both the fraud and no fraud conditions, the client dialogue with the warehouse manager included general information about the procedures that occurred in the warehouse including shipping procedures and documentation procedures. In each of the narratives with the warehouse manager, he mentioned the largest sale of the year. In the fraud condition, the warehouse manager mentioned the receipt of a large order shortly after year end for which the warehouse personnel were instructed not to record the product details. The warehouse manager in the fraud condition noted that this is the only exception to procedures of which he is aware. In practice, an auditor would ask operating personnel about any exceptions that occurred during the year; therefore, the warehouse manager would likely mention the exception. In the no fraud condition, the warehouse manager mentioned the largest sale of the year, but, because of the legitimacy of the sale, there was no exception to the procedures to mention.

I purposefully held the client narratives constant for all of the conditions for every issue except the one in question (i.e., the largest sale of the year). The information provided by the operating personnel (e.g., the warehouse manager) was similar in amounts between the two conditions (fraud and no fraud).

Participants were then asked to make a final fraud risk assessment, client business risk judgment, trustworthiness, reliability, and truthfulness assessments and to document evidence they considered when they made the fraud risk assessment. The trustworthiness, reliability, and truthfulness judgments were recorded for each of the three client personnel presented in the case. Using an open-ended question format, participants were asked to specify what concerns or comments they would like to discuss with other members of the engagement team. In practice, auditors are able to discuss with other engagement team members issues that arise during the course of the audit that indicate a change in fraud risk.

Manipulation Check and Demographics

The participants were asked to complete several manipulation checks and demographic questions. In Evaluation Task 3, as a manipulation check for the warehouse manager's level of experience, participants were asked to evaluate the level of experience of the warehouse manager (0 = Low level of experience; 10 = High level of experience). Participants were asked to identify if they received consistent information or inconsistent information. I used their responses to the open ended questions placed at the end of Evaluation Task 3 to further support awareness of inconsistent information within the fraud condition and consistent information in the no fraud condition. I asked participants to name the actual company used in the case if they thought they recognized the company.

Finally, participants were asked several demographic questions such as gender, experience and job title. The participants were also asked if they had ever worked on an audit where management fraud was detected, as experience with an actual fraud may affect participants' sensitivity to fraud cues. The client dialogues and the descriptions of the warehouse manager differing based on level of experience are provided in Appendix E.

Independent Variables

In summary, I considered the effects of two independent variables, presence of fraud, and level of experience of operating personnel (i.e. the warehouse manager), on four dependent variables: fraud risk assessment, trustworthiness, reliability, and truthfulness assessments. First, I examined the effects of the presence of fraud on the dependent variables. The client inquiries varied by fraud condition. In the fraud condition, the information provided by the chief financial officer and the divisional controller was deceptive, while the information provided by the warehouse manager was not deceptive. In the no fraud condition, the chief financial officer, the divisional controller and the warehouse manager provided information that was truthful.

Second, I examined the effects of the level of experience of the warehouse manager on auditors' judgments. Participants viewed client inquiry information from either a warehouse manager with a higher level of experience or a warehouse manager with a lower level of experience. I described the warehouse manager with a higher level of experience as having worked as a warehouse manager for 12 years; whereas, the warehouse manager in the lower experience condition had two years of experience.

Dependent Variables

I measured the effects of the presence of fraud and level of experience of the warehouse manager on four dependent variables: fraud risk assessment (Carpenter, 2007), the auditor's truthfulness (Lee & Welker, 2007), trustworthiness, and reliability assessments. The fraud risk assessment and an auditor's ability to accurately assess the truthfulness of client personnel both affect audit effectiveness. For an effective audit, auditors must appropriately assess fraud risk. The fraud risk assessment has implications on the nature, timing, and extent of testing done at a later stage of the audit. Similarly, an auditor's ability to accurately assess the truthfulness of client personnel and to judge the trustworthiness and reliability of a source will influence the effectiveness of the audit when client deception is associated with a fraud that is material to the financial statements. See Appendix F for the Institutional Review Board approval letter.

CHAPTER 4

RESULTS

Recall that participants were randomly assigned to one of four cases (e.g. Case 1 – Fraud, Higher Warehouse Manager (WHM) Experience, Case 2 – No Fraud, Higher WHM Experience, Case 3 – Fraud, Lower WHM Experience, Case 4 – No Fraud, Lower WHM Experience).

Manipulation Checks

I conducted an analysis to ensure that the presence of fraud manipulation operated as intended. Analyzing auditors' responses in the fraud condition revealed that all auditors recognized the information inconsistencies and the fraud. In the no fraud condition, all but one participant recognized that no inconsistencies were present in the information provided between the financial personnel (CFO and divisional controller) and the operating personnel (warehouse manager)[3].

To ensure the warehouse manager (WHM) experience manipulation operated as intended, I asked auditors to indicate their perceptions about the warehouse managers' level of experience. Responses were indicated on an 11-point scale where higher scores indicated a higher level of warehouse manager experience. An independent samples t-test was conducted to compare the auditors' perceptions of the warehouse managers' level of experience. There was a significant difference in the overall experience level judgments between the lower WHM experience (M = 5.53, SD = 1.83) and higher WHM experience conditions (M = 7.56, SD = 1.41); t (62) = 4.97, p = .000. Results from the independent samples t-test indicate that auditors in the higher WHM experience condition viewed the warehouse manager as more experienced than auditors in the lower WHM experience condition. Thus, the manipulation operated as intended.

[3] Removing the participant from the sample does not affect any of the results.

Within both the higher and lower WHM experience conditions, I conducted an independent samples t-test to compare the auditors' assessments of the warehouse manager's experience level for the fraud and no fraud conditions. There was no significant difference in the overall warehouse manager experience level judgments in the higher WHM experience condition between the fraud condition (M = 7.50, SD = 1.63) and no fraud condition (M = 7.63, SD = 1.20); t (30) = -.246, p = .807. Additionally, there was no significant difference in the overall warehouse manager experience level judgments in the lower WHM experience condition between the fraud condition (M = 5.25, SD = 2.05) and no fraud condition (M = 5.81, SD = 1.60); t (30) = -.865, p = .394. Therefore, auditors within each warehouse manager experience condition did not evaluate the experience level of the warehouse manager differently between the fraud and no fraud conditions. This provides further evidence that the warehouse manager experience manipulation operated as intended.

Assumptions

The independent samples t-test and paired samples t-test assume that the scores of the dependent measures have a normal distribution, are independent and have equal variances across groups. A Kolmogorov-Smirnov (KS) test and a Shapiro-Wilk test for normality indicate that data from evaluation tasks 1, 2, and 3 are not normally distributed for each measure. However, Pallant (2007) noted that when the sample size is greater than 30, a violation of the normal distribution assumption does not cause serious problems with the analysis. For each test, the sample size is greater than 30. Therefore, the use of parametric tests of the hypotheses is appropriate[4]. To ensure the independence of data, the cases were randomly assigned to auditors.

[4] Additionally, I conducted nonparametric tests for all variables and found the results were consistent with the results of the parametric tests.

Finally, when the data violated the homogeneity of variance assumption, the results from Levene's test were used to evaluate the hypotheses.

Sample Characteristics

I collected several items of demographic data from each of the auditors: (1) gender, (2) rank, (3) experience with management fraud, (4) experience, and (5) familiarity with the fraud case used in the instrument. No auditors correctly identified the company used to develop the case.

First, I used a chi-square test for independence to examine the discrete demographics of the auditors (e.g. gender, rank, experience with fraud) assigned to each of the four cases. Second, I used an analysis of variance test (ANOVA) and independent samples t-tests to test for differences by condition in the demographic variable measured on a continuous scale (e.g. experience).

Gender

In the study, 25 female auditors, representing 39% of the study auditors, and 39 male auditors, representing 61% of the study auditors, provided complete responses. A chi-square test for independence indicated no significant difference in the number of females assigned across the four cases, χ^2 (3, n = 25) = .760, p <.859. Further, a chi-square test for independence indicated no significant difference in the number of males assigned across the four cases, χ^2 (3, n = 39) = .487, p <.922. Therefore, the gender of the auditors was not significantly different by condition.

Rank

Table 1 presents the number of auditors by rank per condition. A chi-square test for independence indicated no significant difference between the number of staff/seniors assigned across the four cases, χ^2 (3, n = 23) = 1.870, p <.600. Further, a chi-square test for independence indicated no significant difference in the number of managers/senior managers assigned across the four cases, χ^2 (3, n = 23) = 2.217, p <.529. Finally, a chi-square test for independence indicated no significant difference in the number of partners assigned across the four cases, χ^2 (3, n = 18) = 2.000, p <.572. Therefore, the ranks of the auditors were not significantly different by condition.

Experience with Management Fraud

Overall, 26 (41%) of the 64 auditors had worked on an audit where management fraud was detected. A chi-square test for independence indicated no significant difference between the number of auditors with experience with management fraud assigned across the four cases, χ^2 (3, n = 26) = 2.615, p <.455. Further, a chi-square test for independence indicated no significant difference in the number of auditors without experience with management fraud assigned across the four cases, χ^2 (3, n = 38) = 1.789, p <.617. Therefore, auditors' experience with management fraud was not significantly different by condition.

Experience

On average, auditors had 10.8 (M = 10.8, SD = 8.76) years of experience. This level of participant experience is consistent with that of participants in prior fraud risk research (Asare & Wright, 2004; Carpenter, 2007; Knapp & Knapp, 2001). An ANOVA was conducted to determine if there was a statistically significant difference in the average experience of the auditors assigned to each of the four cases. There was no significant difference in average experience of the auditors between the four groups: F (3, 60) = .754, p = .525. See Table 1 for the auditors' average years experience by condition.

Additionally, independent samples t-tests conducted to compare the auditors' average experience levels (in years) revealed no significant differences within the fraud condition between the higher (M = 11.26, SD = 9.14) and lower WHM experience cases (M = 12.41, SD = 9.60); t (30) = -0.347, p = .731, within the no fraud condition between the higher (M = 8.03, SD = 8.03) and lower WHM experience cases (M = 11.50, SD = 8.39); t (30) = -1.197, p = .241, within the higher WHM experience condition between the fraud (M = 11.26, SD = 9.14) and no fraud cases (M = 8.03, SD = 8.03); t (30) = 1.062, p = .297, and within the lower WHM experience condition between the fraud (M = 12.41, SD = 9.60) and no fraud cases (M = 11.50, SD = 8.39); t (30) = .284, p = .778.

Evaluation Task 1

Prior to Evaluation Task 1, auditors viewed company information and financial statements and auditors were exposed to one of two conditions (i.e. fraud condition or no fraud condition)[5]. Because I used the belief adjustment model as a theoretical framework, I gathered data after auditors viewed initial client information to establish a baseline measure of the auditors' fraud risk assessments with which to compare future fraud risk assessments. From a theoretical perspective, I expected to find that auditors were willing to revise their initial fraud risk assessments (i.e. initial beliefs) to incorporate new audit evidence into their fraud risk judgments; therefore, the baseline fraud risk assessment measure was used to demonstrate auditors' belief adjustments when compared with fraud risk assessments made after the presentation of additional audit evidence. Further, in practice, auditors make an initial fraud risk assessment after reviewing client information, but are expected to revisit this judgment as the

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[5] Recall that for Evaluation Tasks 1 and 2, auditors were exposed to either the fraud or no fraud condition. Just prior to Evaluation Task 3, auditors were exposed to client dialogue from a warehouse manager with either a higher or a lower level of experience. Therefore, for Evaluation Task 3, auditors belonged to one of four conditions or case groups (e.g. Case 1 – Fraud, Higher WHM Experience, Case 2 – No Fraud, Higher WHM Experience, Case 3 – Fraud, Lower WHM Experience, Case 4 – No Fraud, Lower WHM Experience).

audit progresses and more evidence is gathered. Therefore, the progression of my research task follows the progression by which fraud risk assessments are made in the audit environment and gathers judgments at multiple points during the task to capture auditors' belief revisions.

Baseline Risk Measures

The baseline measure of auditors' fraud risk assessments was measured after they reviewed company background information, unaudited financial statements, fraud risk factors, and analytical procedures, but prior to receiving any definitive audit evidence indicative of fraud. Therefore, I expected to find that auditors' fraud risk assessments made in Evaluation Task 1 would not be significantly different between the fraud and no fraud conditions.

To analyze auditors' judgments of fraud risk, I aggregated their judgments for each attribute of fraud risk (likelihood, significance and pervasiveness) as identified by SAS 99 into an average measure called overall fraud risk. By averaging the judgments for the three attributes of fraud risk, I developed an overall fraud risk measure that is consistent with prior research (Carpenter, 2004, 2007)[6]. Further, although auditors consider the different attributes of fraud risk as outlined by SAS 99, audit workpapers often reflect an overall judgment of fraud risk. Auditors evaluated each of the individual fraud risk components on an 11 point scale (0 to 10) with a higher number representing a greater risk of fraud. Therefore, the overall fraud risk measure was based on an 11 point scale with a higher number indicating a greater risk of fraud. Though I report the individual components of risk and the overall measure of fraud risk, I use the overall fraud risk measure to summarize the effects captured by the individual fraud risk components.

An independent samples t-test was conducted to compare the auditors' initial overall fraud risk assessment judgments for the fraud and no fraud conditions. There was no significant difference in the overall fraud risk assessment judgments between the fraud (*M* = 5.05, *SD* =

[6] Carpenter (2004, 2007) reports on the likelihood of fraud risk and the overall fraud risk.

1.81) and no fraud conditions (*M* = 5.36, *SD* = 1.51); *t* (62) = -.749, *p* = .457 (two-tailed). Auditors' initial overall fraud risk assessments did not differ significantly based on the presence of fraud.

Additionally, I compared the overall fraud risk assessments to the mid-point (5) of the scale for both the fraud and no fraud cases. In the fraud condition, the auditors' overall fraud risk judgments (*M* = 5.05, *SD* = 1.81) did not significantly differ from the mid-point of the scale (5); *t* (31) = .162, *p* = .872 (two-tailed). In the no fraud condition, the auditors' overall fraud risk judgments (*M* = 5.36, *SD* = 1.51) did not significantly differ from the mid-point of the scale (5); *t* (31) = 1.37, *p* = .181 (two-tailed).

As detailed in Table 2, I also conducted independent samples t-tests to compare the fraud risk measures individually and the client business risk measure between the fraud and no fraud conditions. In addition, there was no significant difference in any of the individual fraud risk components (i.e. likelihood, significance and pervasiveness) between the fraud and no fraud conditions. There was no significant difference in the client business risk judgments between the fraud (*M* = 5.28, *SD* = 2.02) and no fraud conditions (*M* = 5.31, *SD* = 1.86); *t* (62) = -.064, *p* = .949 (two-tailed). See Table 2 for the results.

Evaluation Task 1 Summary

The results provide a baseline measure of fraud risk and demonstrate that auditors in the fraud and no fraud conditions do not evaluate the fraud risk of the client significantly differently after the presentation of initial audit evidence. In fact, auditors evaluate the fraud risk close to the mid-point of the scale in both the fraud and no fraud conditions. Although auditors used evidence such as analytical procedure results (Knapp & Knapp, 2001) and fraud risk factors presented in workpaper format as outlined by SAS 99 (AICPA, 2002) to evaluate risk, the auditors were not able to detect fraud after the initial presentation of audit evidence in which no conflicting information is apparent. However, in practice, auditors will continue to gather audit evidence and may revise initial risk assessment judgments in light of new evidence. Results from Evaluation Task 2 provide evidence of auditors' willingness to revise initial beliefs.

Evaluation Task 2

Auditors were presented with client inquiry dialogue from the CFO and the divisional controller, both of whom are considered financial personnel as they are involved with the financial reporting process. The financial personnel provided some general information about the client, market conditions, incentive programs, company procedures and information about the largest sale of the year occurring on the last day of the year. A large sale around year end represents a common fraud risk factor that auditors consider in assessing fraud risk.

Because auditors in both the fraud and no fraud conditions receive information about the largest sale of the year occurring on the last day of the year, I expected to find that auditors in all cases would increase their fraud risk assessments. In the fraud case, the largest sale of the year was a parking transaction, while in the no fraud case, the sale was legitimate. Therefore, the information about the largest sale of the year provided by the CFO and the divisional controller was not truthful in the fraud case. In the no fraud case, the information provided by the CFO and the divisional controller was truthful because the sale occurred and there was no return of product. I expected the largest sale to impact both those in the fraud and no fraud conditions and that auditors' would not be able to appropriately evaluate the truthfulness of the client personnel.

In addition to evaluating fraud and client business risk for a second time, auditors were asked to evaluate the trustworthiness, reliability, and truthfulness of financial personnel.

Therefore, auditors were asked to revise or confirm their initial fraud risk and client business risk assessments and form initial beliefs with regard to the financial personnel.

Hypothesis 1a

After auditors reviewed the audit evidence provided by the financial personnel, they completed a second series of risk judgments. I expected to find that auditors would incorporate the new audit evidence into their judgments, but that they would not be able to determine that the evidence provided by the financial personnel in the fraud condition was misleading, whereas the information provided in the no fraud condition was reliable. Therefore, Hypothesis 1a was stated as follows: When client inquiry information is provided by credible sources (e.g., the CFO and the divisional controller), auditors' fraud risk assessments will not differ significantly between the presence of fraud and absence of fraud conditions.

I measured auditors' fraud risk assessment beliefs after they read the transcripts of the client inquiries with the CFO and the divisional controller. I conducted an independent samples t-test to compare the auditors' fraud risk assessment judgments after reviewing client inquiry evidence from financial personnel for the fraud and no fraud conditions. There was no significant difference in the overall fraud risk assessment judgments between the fraud (M = 6.16, SD = 1.95) and no fraud conditions (M = 6.02, SD = 1.14); t (49.8) = .339, p = .736 (two-tailed). Auditors' second fraud risk assessments did not differ significantly based on the presence of fraud. Thus, I find support for H1a[7].

Additionally, I compared the overall fraud risk assessments to the mid-point (5) of the scale for both the fraud and no fraud cases. In the fraud condition, the auditors' overall fraud risk judgments (M = 6.16, SD = 1.95) did significantly differ from the mid-point of the scale (5); t (31) = 3.35, p = .002 (two-tailed). In the no fraud condition, the auditors' overall fraud risk

[7] H1a is stated in the null.

judgments (M = 6.02, SD = 1.14) did significantly differ from the mid-point of the scale (5); t (31) = 5.09, p = .000 (two-tailed).

Additionally, I conducted independent samples t-tests to compare the fraud risk measures individually and the client business risk measure between the fraud and no fraud conditions. There was no significant difference in the individual risk measures between the fraud and no fraud conditions. There was no significant difference in the client business risk judgments between the fraud (M = 5.72, SD = 1.71) and no fraud conditions (M = 5.66, SD = 1.68); t (62) = .148, p = .883 (two-tailed). See Table 3 for the results.

To provide further evidence of auditors' ability to incorporate additional audit evidence into their judgments, I conducted paired samples t-tests to evaluate the impact of client inquiry evidence provided by financial personnel on auditors' risk assessments between Evaluation Task 1 and Evaluation Task 2. Though not formally hypothesized, I expected to find, due to the common risk factor of the largest sale of the year, that auditors in both the fraud and no fraud conditions would increase their fraud risk assessments.

In the fraud condition, there was a statistically significant increase in auditors' overall fraud risk assessments from before the client inquiry audit evidence from financial personnel was presented (M = 5.05, SD = 1.81) to after the evidence was presented (M = 6.16, SD = 1.95); t (31) = -5.026, p = .000 (one-tailed). There was a statistically significant increase in auditors' fraud risk assessments for each of the individual attributes from before the client inquiry audit evidence from financial personnel was presented to after the evidence was presented. Finally, in the fraud condition, there was a statistically significant increase in auditors' client business risk assessments from before the client inquiry audit evidence from financial personnel was presented

(M = 5.28, SD = 2.02) to after the evidence was presented (M = 5.72, SD = 1.71); t (31) = -1.781, p = .0425 (one-tailed). See Table 4 for the results.

In the no fraud condition, there was a statistically significant increase in auditors' overall fraud risk assessments from before the client inquiry audit evidence from financial personnel was presented (M = 5.36, SD = 1.51) to after the evidence was presented (M = 6.02, SD = 1.14); t (31) = -2.82, p = .004 (one-tailed). There was a statistically significant increase in auditors' fraud risk assessments for each of the individual attributes from before the client inquiry audit evidence from financial personnel was presented to after the evidence was presented. Finally, in the no fraud condition, there was a statistically significant increase at the p = .098 level in auditors' client business risk assessments from before the client inquiry audit evidence from financial personnel was presented (M = 5.31, SD = 1.86) and after the evidence was presented (M = 5.66, SD = 1.68); t (31) = -1.32, p = .098 (one-tailed). See Table 5 for the results.

Auditors in both the fraud and no fraud conditions incorporated the information provided by financial personnel into their fraud risk assessments in a similar manner even though the information in the fraud condition was not truthful. Therefore, the effect of the information provided by financial personnel on auditors' fraud risk assessments and client business risk assessments was not significantly different based on the truthfulness of the information because the auditors in the fraud condition were not able to distinguish the information as deceptive.

Hypothesis 1b

In light of prior research, I expected to find that auditors' truthfulness assessments of financial personnel would not be significantly different between the fraud and no fraud conditions, as at the time of the initial truthfulness assessments, all of the information presented was consistent though the representations made by management in the fraud condition were false. Recall that Hypothesis 1b was stated as follows: In the presence of fraud, auditors' initial truthfulness judgments of financial personnel (e.g., the CFO and divisional controller) will not differ significantly from auditors' truthfulness judgments in the absence of fraud.

An independent samples t-test was conducted to compare the auditors' truthfulness assessments of financial personnel for the fraud and no fraud conditions[8]. There was no significant difference in the truthfulness assessments of the financial personnel between the fraud (M = 5.38, SD = 1.45) and no fraud conditions (M = 5.53, SD = 1.49); t (62) = -.43, p = .67 (two-tailed). There was no significant difference in the truthfulness assessments for the CFO between the fraud (M = 5.41, SD = 1.66) and no fraud conditions (M = 5.34, SD = 1.49); t (62) = .16, p = .875 (two-tailed). Further, there was no significant difference in the truthfulness assessments for the divisional controller between the fraud (M = 5.34, SD = 1.52) and no fraud conditions (M = 5.72, SD = 1.63); t (62) = -.95, p = .34 (two-tailed). Auditors' truthfulness assessments of financial personnel did not differ significantly based on the presence of fraud. Thus, I find support for H1b.

Additionally, I conducted independent samples t-tests to compare client trustworthiness and reliability measures individually between the fraud and no fraud conditions for both the CFO and the divisional controller. There was no significant difference in the overall trustworthiness of the financial personnel between the fraud (M = 5.91, SD = 1.07) and no fraud conditions (M = 5.53, SD = 1.51); t (62) = 1.14, p = .26 (two-tailed)[9]. Finally, there was no significant difference in the overall reliability of the financial personnel between the fraud (M = 5.83, SD = 1.04) and

[8] Recall that the truthfulness assessment was reverse coded because the wording of this item was reversed to help prevent response bias (Pallant, 2007). Please note, the original measure regarding the truthfulness of the CFO reads as follows "How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?" The wording for the divisional controller is identical with the exception of the personnel of whom the question addresses. Results are presented using the values after reverse coding.

[9] To provide an overall measure of financial personnel, I collapsed the measures for the CFO and divisional controller into a composite variable.

no fraud conditions (*M* = 5.64, *SD* = 1.45); *t* (56.14) = .60, *p* = .55 (two-tailed). There was no significant difference in the trustworthiness assessments for the CFO between the fraud (*M* = 5.75, *SD* = 1.32) and no fraud conditions (*M* = 5.28, *SD* = 1.35); *t* (62) = 1.41, *p* = .17 (two-tailed). There was no significant difference in the reliability assessments for the CFO between the fraud (*M* = 5.75, *SD* = 1.39) and no fraud conditions (*M* = 5.31, *SD* = 1.66); *t* (62) = 1.15, *p* = .26 (two-tailed). Further, there was no significant difference in the trustworthiness assessments for the divisional controller between the fraud (*M* = 6.06, *SD* = 1.08) and no fraud conditions (*M* = 5.78, *SD* = 1.85); *t* (49.90) = .75, *p* = .46 (two-tailed). There was no significant difference in the reliability assessments for the divisional controller between the fraud (*M* = 5.91, *SD* = 1.03) and no fraud conditions (*M* = 5.97, *SD* = 1.43); *t* (62) = -.20, *p* = .84 (two-tailed). See Table 3 for the results.

Auditors were not able to distinguish between the truthfulness, trustworthiness, and reliability of financial personnel in the fraud and no fraud conditions. Therefore, the information that financial personnel provided was incorporated into auditors' judgments even though the auditors were not able to properly assess the truthfulness of the source. Financial personnel in the fraud condition were able to present themselves as equally truthful, trustworthy, and reliable as those in the no fraud condition and auditors were unable to detect the deception.

Evaluation Task 2 Summary

The results provide evidence that fraud risk assessments were not different for the fraud and no fraud conditions; therefore, management in the fraud condition was successful in providing consistent audit evidence that kept auditors' fraud risk assessments in line with auditors' fraud risk assessments in the no fraud condition. Although auditors in both the fraud and no fraud conditions significantly increased their risk assessments between Evaluation Task 1 and Evaluation Task 2 (i.e. after financial personnel provided inquiry evidence), they did so in a consistent manner regardless of the fraud condition. These results indicate that auditors receiving consistent information were not able to effectively assess fraud risk and determine the presence of fraud.

Auditors' truthfulness assessments of financial personnel reveal that they were not able to detect when management was not providing truthful information. Regardless of the fraud condition, the auditors did not judge the trustworthiness, reliability, and truthfulness of the financial personnel differently. Therefore, they incorporated the information provided by both the truthful financial personnel and the deceptive financial personnel into the risk judgments equally.

As stated in SAS 99, auditors should seek corroborating evidence for audit evidence gathered via management inquiry. Auditors may speak with operating personnel to gather such evidence. Results from Evaluation Task 3 address auditors' ability to incorporate such corroborating evidence gathered from operating personnel.

Evaluation Task 3

After completing Evaluation Task 2, auditors were presented with client inquiry dialogue from the warehouse manager. Until the review of information from the warehouse manager, auditors were exposed to one of two conditions (i.e. fraud or no fraud). The client inquiry of the warehouse manager exposed the auditors to the second independent variable (i.e. experience level of the warehouse manager). At this point, auditors belonged to one of four groups (e.g. Case 1 – Fraud, Higher WHM Experience, Case 2 – No Fraud, Higher WHM Experience, Case 3 – Fraud, Lower WHM Experience, Case 4 – No Fraud, Lower WHM Experience). In the fraud condition, the warehouse manager provided information that was inconsistent with that which was provided by financial personnel; in the no fraud condition, the information provided by the warehouse manager was consistent with that which was provided by the financial personnel[10]. Further, the warehouse manager was either described as having a higher level of experience or a lower level of experience. To test for the main effect of an independent variable, I analyzed the data for the independent variable across all levels of the other independent variable. For example, I collapsed the results for Cases 1 and 3 (fraud condition) into one group and compared them to the collapsed results for Cases 2 and 4 (no fraud condition). However, where relevant, I performed a separate analysis by warehouse manager experience level in the fraud condition and the no fraud condition thus comparing Cases 1 and 3, and Cases 2 and 4. Such analysis was completed for Hypotheses 2e, 2f, and 2g.

In addition to evaluating fraud and client business risk for a third time, auditors were asked to evaluate the trustworthiness, reliability, and truthfulness of financial personnel for a second time and the trustworthiness, reliability, and truthfulness of the warehouse manager for the first time. Additionally, I collected data regarding the influence of the evidence provided by the warehouse manager on auditors' judgments. Therefore, in Evaluation Task 3, auditors were asked to revise or confirm their risk assessments, beliefs about financial personnel and form initial beliefs about the warehouse manager.

Hypothesis 2a

In the fraud condition, auditors were presented with information from the warehouse manager that did not support the information provided by financial personnel. As noted by Kahle, Pinsker, and Pennington (2005) in their review of belief revision literature, auditors are sensitive to disconfirming evidence, therefore, I expected to find that auditors would incorporate

[10] As reported in the manipulation check, there was not a significant difference in the warehouse manager experience level assessments between the fraud and no fraud conditions; though there was a significant difference in warehouse manager experience between the higher and lower WHM conditions.

inconsistent information into their judgments and significantly revise their initial beliefs. Recall that Hypothesis 2a was stated as follows: In the presence of fraud, auditors will significantly increase their fraud risk assessments after the presentation of inconsistent audit evidence from operating personnel.

A paired samples t-test was conducted to evaluate the impact of the presentation of inconsistent information in the presence of fraud on the auditors' overall fraud risk assessments. There was a statistically significant increase in their overall fraud risk assessments from before the inconsistent information (Evaluation Task 2) was presented ($M = 6.16$, $SD = 1.95$) to after the inconsistent information (Evaluation Task 3) was presented ($M = 8.54$, $SD = 1.34$); $t\ (31) = -7.05$, $p = .000$ (two-tailed). Therefore, I find support for H2a and conclude that there was a substantial increase in the auditors' fraud risk assessments after the presentation of inconsistent information. See Table 6 for the results.

Additionally, in the fraud condition, I conducted paired samples t-tests to compare the fraud risk measures individually and the client business risk measure between Evaluation Tasks 2 and 3. There was a statistically significant increase in each of the fraud risk attributes from before the inconsistent information (Evaluation Task 2) was presented to after the inconsistent information (Evaluation Task 3) was presented. Auditors significantly increased an overall measure of risk, client business risk, from before ($M = 5.72$, $SD = 1.71$) to after the inconsistent information was presented ($M = 7.34$, $SD = 1.38$); $t\ (31) = -5.89$, $p = .000$ (two-tailed). Therefore, auditors significantly revised each of the fraud risk measures and the client business risk measure. The results are presented in Table 6. I find support for Hypothesis 2a and I provide evidence that auditors will revise their beliefs in light of inconsistent audit evidence. Auditors will appropriately increase their fraud risk assessments once they have collected audit evidence that does not support previously collected audit evidence.

Additional analyses reveal that in the no fraud condition, the impact of the presentation of consistent information from the warehouse manager resulted in a significant decrease in auditors' overall fraud risk assessments and in each individual fraud risk component. I conducted paired samples t-tests to compare the fraud risk measures and the client business risk measure between Evaluation Tasks 2 and 3 in the no fraud condition. There was a statistically significant decrease in the overall fraud risk assessments from before the consistent information (Evaluation Task 2) was presented (M = 6.02, SD = 1.14) to after the consistent information (Evaluation Task 3) was presented (M = 5.40, SD = 1.76); t (31) = 2.89, p = .01 (two-tailed). Auditors significantly decreased an overall measure of risk, client business risk, from before (M = 5.66, SD = 1.68) and after the consistent information was presented (M = 4.84, SD = 1.82); t (31) = 2.33, p = .03 (two-tailed). See Table 7 for the results. I find that auditors incorporated consistent audit evidence into their judgments. In contrast with the results in the fraud condition in which auditors significantly increased their fraud risk assessments, auditors in the no fraud condition significantly decreased their risk judgments in light of consistent audit evidence. In the no fraud condition, auditors' fraud risk assessments returned to levels comparable to the baseline measure captured after Evaluation Task 1, before the financial personnel provided information that the largest sale of the year occurred on the last day of the year.

Further, I conducted an independent samples t-test to compare the auditors' risk assessments between the fraud and no fraud conditions. Overall fraud risk assessments were significantly higher in the fraud condition (M = 8.54, SD = 1.34) than in the no fraud condition (M = 5.40, SD = 1.76); t (62) = 8.04, p = .000 and each of the individual risk measures was significantly higher in the fraud condition than in the no fraud condition. Further, client business risk assessments were significantly higher in the fraud condition (M = 7.34, SD = 1.38) than in the no fraud condition (M = 4.84, SD = 1.82); t (62) = 6.20, p = .000. Therefore, I find that auditors' final fraud risk assessments are significantly higher in the presence of inconsistent audit evidence (fraud) than in the presence of consistent audit evidence (no fraud). See Table 8 for the results.

To provide further evidence of auditors' ability to incorporate additional audit evidence into their judgments, I conducted paired samples t-tests to evaluate the impact of client inquiry evidence provided by financial personnel on auditors' risk assessments between Evaluation Task 1 and Evaluation Task 3. In the fraud condition, there was a statistically significant increase in auditors' overall fraud risk assessments and individual fraud risk components from Evaluation Task 1 to Evaluation Task 3. See Table 9 for the results. In the no fraud condition, there was not statistically significant difference in auditors' overall fraud risk assessments and individual fraud risk components from Evaluation Task 1 to Evaluation Task 3. In effect, the participants in the no fraud condition reduced their fraud risk assessments to the baseline line level in the presence of consistent, corroborating evidence from nonfinancial personnel. See Table 10 for the results.

Furthermore, I asked auditors to evaluate the influence that the information provided by the warehouse manager had on their fraud risk assessments in both the fraud and no fraud condition. I conducted an independent samples t-test to compare the warehouse manager evidence influence assessments for the fraud and no fraud conditions. The evidence provided by the warehouse manager significantly influenced auditors more in the fraud condition (M = 9.19, SD = 1.12) than in the no fraud condition (M = 6.13, SD = 2.28); t (45.11) = 6.81, p = .000. Inconsistent evidence influenced auditors' risk assessments significantly more than consistent evidence; however, as was shown in the previous analysis, the evidence provided by the warehouse manager did influence auditors in both the fraud and no fraud conditions. The greater influence of inconsistent evidence, as opposed to consistent evidence, on auditors' judgment is consistent with prior research finding that disconfirming evidence had a greater effect than consistent evidence on auditors' judgments (Kahle, Pinsker, & Pennington, 2005; Ashton & Ashton, 1990).

Auditors in both the fraud and no fraud conditions incorporated the information provided by financial personnel into their fraud risk assessments in a similar manner even though the information in the fraud condition was not truthful. Therefore, the effect of the information provided by financial personnel on auditors' fraud risk assessments and client business risk assessments was not significantly different based on the truthfulness of the information because the auditors in the fraud condition were not able to distinguish the information as deceptive.

This is further verified by comparing the overall fraud risk assessments to the mid-point (5) of the scale for both the fraud and no fraud cases. In the fraud condition, the auditors' overall fraud risk assessments ($M = 8.54$, $SD = 1.34$) did significantly differ from the mid-point of the scale (5); $t\ (31) = 14.91$, $p = .000$ (two-tailed). In the no fraud condition, the auditors' overall fraud risk assessments ($M = 5.40$, $SD = 1.76$) did not significantly differ from the mid-point of the scale (5); $t\ (31) = 1.27$, $p = .212$ (two-tailed).

Auditors receiving inconsistent audit evidence at a later point in the audit assess risk significantly higher than do auditors receiving consistent evidence throughout the audit. As shown by the significant risk revisions for both the fraud and no fraud conditions, auditors incorporate new audit evidence into their risk assessments and engage in belief revision.

Therefore, auditors revise their beliefs to incorporate new audit evidence and the direction of the belief revision is dependent on the consistency of the audit evidence.

Hypothesis 2b

In light of inconsistent audit evidence, I expected to find that auditors would revise their truthfulness beliefs about financial personnel. Therefore, Hypothesis 2b was stated as follows: Auditors' final truthfulness judgments of financial personnel (e.g., the CFO and the divisional controller) will be lower in the presence of fraud than in the absence of fraud.

An independent samples t-test was conducted to compare the auditors' truthfulness assessments of financial personnel for the fraud and no fraud conditions. Truthfulness assessments for the CFO were significantly lower in the fraud condition (M = 2.66, SD = 2.61) after Evaluation Task 3 than in the no fraud condition (M = 5.28, SD = 1.46); t (48.75) = -4.96, p = .000. Further, truthfulness assessments for the divisional controller were significantly lower in the fraud condition (M = 3.41, SD = 2.87) than in the no fraud condition (M = 5.69, SD = 1.58); t (48.09) = -3.94, p = .000. See Table 8 for the results.

In the fraud condition, a paired samples t-test was conducted to evaluate the impact of the presentation of inconsistent information on the auditors' truthfulness assessments of the CFO and the divisional controller. There was a statistically significant decrease in auditors' truthfulness assessments of the CFO from before the inconsistent information (Evaluation Task 2) was presented (M = 5.41, SD = 1.66) to after the inconsistent information (Evaluation Task 3) was presented (M = 2.66, SD = 2.61); t (31) = 5.98, p = .000 (two-tailed). There was a statistically significant decrease in auditors' truthfulness assessments of the divisional controller from before the inconsistent information was presented (M = 5.34, SD = 1.52) to after the inconsistent information was presented (*M* = 3.41, *SD* = 2.87); *t* (31) = 3.89, *p* = .000 (two-tailed). See Table 6 for the results.

Further, in the no fraud condition, a paired samples t-test was conducted to evaluate the impact of the presentation of consistent information on the auditors' truthfulness assessments of the CFO and divisional controller. There was a not statistically significant increase in auditors' truthfulness assessments of the CFO from before the consistent information (Evaluation Task 2) was presented (*M* = 5.34, *SD* = 1.49) to after the consistent information (Evaluation Task 3) was presented (*M* = 5.28, *SD* = 1.46); *t* (31) = .21, *p* = .83 (two-tailed). There was not a statistically significant increase in auditors' truthfulness assessments of the divisional controller from before the consistent information was presented (*M* = 5.72, *SD* = 1.63) to after the consistent information was presented (*M* = 5.69, *SD* = 1.58); *t* (31) = .09, *p* = .93 (two-tailed). Therefore, auditors significantly revised their truthfulness assessments of financial personnel in the fraud condition only. See Table 7 for the results.

An independent samples t-test was conducted to compare the auditors' truthfulness assessments of the warehouse manager (nonfinancial personnel) between the fraud and no fraud conditions. Truthfulness assessments for the warehouse manager were significantly lower in the fraud condition (*M* = 3.06, *SD* = 2.31) than in the no fraud condition (*M* = 4.44, *SD* = 2.24); *t* (62) = -2.41, *p* = .019. See Table 8 for the results. Although, the warehouse manager was truthful in both the fraud and no fraud conditions, auditors' judgments of warehouse personnel may have been influenced by the information provided and they may have changed their perception of all client personnel based on their experience with the deceptive financial personnel and their revised risk associated with the audit.

Auditors' truthfulness assessments of client personnel differed significantly based on the presence of fraud. Thus, I find support for H2b. Further, I provide evidence that auditors are able to properly assess the truthfulness of financial personnel when corroborating or disconfirming evidence is collected at a later point during the audit. Therefore, when evaluating the truthfulness of financial personnel, using evidence consistency as criteria (SAS 99) results in appropriate truthfulness assessments.

Hypothesis 2c

After reviewing inconsistent audit evidence (Evaluation Task 3) present in the fraud condition, auditors were asked to reevaluate the trustworthiness, reliability, and truthfulness of financial personnel who previously provided deceptive information. I expected to find that auditors would revise their assessments of financial personnel once they received evidence that did not fully support the evidence provided by financial personnel. Therefore, consistent with belief revision theory, auditors would revise their beliefs based on the inconsistent evidence and I stated Hypothesis 2c as follows: In the presence of fraud, auditors will significantly revise their trustworthiness, reliability, and truthfulness assessments of financial personnel (e.g., the CFO and the divisional controller) after inconsistent information is reviewed.

In the fraud condition, a paired samples t-test was conducted to evaluate the impact of inconsistent information on the auditors' trustworthiness, reliability, and truthfulness assessments of financial personnel. There was a statistically significant decrease in auditors' trustworthiness assessments of financial personnel from before the inconsistent information (Evaluation Task 2) was presented (M = 5.91, SD = 1.07) to after the inconsistent information (Evaluation Task 3) was presented (M = 3.03, SD = 1.72); t (31) = 8.99, p = .000 (two-tailed). There was a statistically significant decrease in auditors' reliability assessments of financial personnel from before the inconsistent information was presented (*M* = 5.83, *SD* = 1.04) to after the inconsistent information was presented (*M* = 2.95, *SD* = 1.88); *t* (31) = 7.85, *p* = .000 (two-tailed). There was a statistically significant decrease in auditors' truthfulness assessments of financial personnel from before the inconsistent information was presented (*M* = 5.38, *SD* = 1.45) to after the inconsistent information was presented (*M* = 3.03, *SD* = 2.40); *t* (31) = 5.84, *p* = .000 (two-tailed). Further, paired samples t-tests for each of the individual measures for the CFO and the divisional controller reveal significant decreases in the evaluation of the trustworthiness, reliability, and truthfulness of the financial personnel. See Table 6 for the results. Therefore, I find support for H2c and can conclude that there was a significant decrease in the auditors' assessments of financial personnel after the presentation of inconsistent information.

In the no fraud condition, a paired samples t-test was conducted to evaluate the impact of the presentation of consistent information on the auditors' assessments of the trustworthiness, reliability, and truthfulness of financial personnel. There was not a statistically significant difference in auditors' trustworthiness assessments of financial personnel from before the consistent information (Evaluation Task 2) was presented (*M* = 5.53, *SD* = 1.51) to after the consistent information (Evaluation Task 3) was presented (*M* = 5.61, *SD* = 1.29); *t* (31) = -.40, *p* = .70 (two-tailed). There was not a statistically significant difference in auditors' reliability assessments of financial personnel from before the consistent information was presented (*M* = 5.64, *SD* = 1.45) to after the consistent information was presented (*M* = 5.66, *SD* = 1.19); *t* (31) = -.08, *p* = .94 (two-tailed). There was not a statistically significant difference in auditors' truthfulness assessments of financial personnel from before the consistent information was presented (*M* = 5.53, *SD* = 1.49) to after the consistent information was presented (*M* = 5.48, *SD* = 1.36); *t* (31) = .17, *p* = .87 (two-tailed). Further, paired samples t-tests for each of the individual measures for the CFO and the divisional controller reveal no significant differences in the evaluation of the trustworthiness, reliability, and truthfulness of the financial personnel in the no fraud condition. See Table 7 for the results. Therefore, I find that after the presentation of consistent evidence, auditors do not significantly revise their trustworthiness, reliability, and truthfulness assessments of financial personnel.

Overall, auditors' assessments of financial personnel differ significantly in the presence of fraud after inconsistent information was presented. Thus, I find support for H2c. Additional analyses reveal that in the no fraud condition, after the presentation of consistent information from the warehouse manager, auditors did not significantly revise any of their judgments of financial personnel. Therefore, as is consistent with belief revision literature (Kahle, Pinsker, & Pennington, 2005), I find that auditors are sensitive to disconfirming evidence and they revise their judgments of financial personnel when inconsistent evidence is presented.

Hypothesis 2d

After auditors collect additional evidence (Evaluation Task 3), auditors' trustworthiness, and reliability assessments of financial personnel may differ based on the consistency of the additional evidence. The perceived characteristics of a source may be influenced by the presentation of additional evidence (i.e. inconsistent evidence) that suggests that the source is not trustworthy, and reliable. I expected to find that auditors would differ in their judgments of financial personnel based on the consistency of audit evidence provided after the initial client inquiry evidence (Evaluation Task 2). Therefore, Hypothesis 2d follows: In the presence of fraud, auditors' final trustworthiness, and reliability assessments of financial personnel (e.g., the CFO and the divisional controller) will be lower than those made in the absence of fraud.

Financial Personnel

An independent samples t-test was conducted to compare the auditors' trustworthiness, and reliability assessments of financial personnel between the fraud and no fraud conditions. Final trustworthiness assessments of the financial personnel were significantly lower in the fraud condition ($M = 3.03$, $SD = 1.72$) than in the no fraud condition ($M = 5.61$, $SD = 1.29$); $t\ (62) = -6.78$, $p = .000$. Final reliability assessments of the financial personnel were significantly lower in the fraud condition ($M = 2.95$, $SD = 1.88$) than in the no fraud condition ($M = 5.66$, $SD = 1.19$); $t\ (52.50) = -6.86$, $p = .000$. In support of Hypothesis 2d, I find that trustworthiness, and reliability assessments of financial personnel were significantly lower in the presence of fraud (inconsistent information) than in the absence of fraud (consistent information). Further, I conducted an independent samples t-test for each of the measures of the CFO and divisional controller. The auditors' assessments for each of the measures of the financial personnel were significantly lower in the fraud condition than in the no fraud condition. See Table 8 for results.

Warehouse Manager

Evaluation Task 3 contained the first and only judgment of the warehouse manager's trustworthiness, and reliability. Because the evidence provided by the warehouse manager was truthful, I expected to find that the warehouse manager's trustworthiness and reliability assessments would not differ significantly between the fraud and no fraud conditions. Therefore, I did not formally hypothesize a relationship between the presence of fraud and the auditors' assessments of the warehouse manager. Independent samples t-tests were conducted to compare the auditors' trustworthiness, and reliability assessments of the warehouse manager between the fraud and no fraud conditions. There was not a significant difference in the trustworthiness assessments of the warehouse manager between the fraud ($M = 5.47$, $SD = 3.09$) and no fraud conditions (*M* = 6.19, *SD* = 1.89); *t* (51.37) = -1.12, *p* = .27 (two-tailed). There was not a significant difference in the reliability assessments of the warehouse manager between the fraud (*M* = 5.25, *SD* = 2.99) and no fraud conditions (*M* = 6.28, *SD* = 1.99); *t* (53.87) = -1.62, *p* = .11 (two-tailed). Therefore, trustworthiness, and reliability assessments of the warehouse manager did not differ based on the presence of fraud. See Table 8 for the results.

Overall, auditors' trustworthiness, and reliability assessments of financial personnel differed significantly based on the presence of fraud. I find support for H2d. The consistency of the audit evidence collected subsequent to the initial client inquiry influences auditors' assessments of financial personnel. Therefore, multiple sources of evidence influence auditors' trustworthiness and reliability assessments of financial personnel.

Hypothesis 2e

SAS 99 guides auditors to consider the characteristics of the sources of evidence such as level of authority and responsibility for financial reporting. Recall that auditors in this study were presented with corroborating evidence from the warehouse manager. I manipulated the experience level of the warehouse manager from whom they received the evidence. Because personnel with more experience are often viewed as more knowledgeable, I expected to find that evidence from a highly experienced warehouse manager would have a greater effect on auditors' judgments than evidence provided by a less experienced warehouse manager. Therefore, Hypothesis 2e was stated as follows: Auditors will revise their fraud risk assessments to a greater extent in the presence of information provided by a highly experienced warehouse manager than information provided by a less experienced warehouse manager.

To calculate the extent of belief revision, I used the absolute value of the difference between the auditors' Evaluation Task 2 and Evaluation Task 3 overall fraud risk assessments. I use the absolute value of the revision because I focus on the extent of the revision, not the direction of the revision as is consistent with prior belief revision studies (Kahle, Pinsker & Pennington, 2005). An independent samples t-test was conducted to compare the extent to which auditors' revised their fraud risk assessments when information was provided by the warehouse manager in the higher WHM experience condition as compared to the lower WHM experience condition. There was a significant difference in the extent to which auditors' revised their fraud risk assessment judgments from Evaluation Task 2 (after reviewing client inquiry evidence from financial personnel) to Evaluation Task 3 (after reviewing client inquiry evidence from the warehouse manager) between the higher (M = 1.99, SD = 2.00) and lower WHM experience conditions (M = 1.35, SD = 1.20); t (62) = 1.536, p = .065 (one-tailed). Therefore, auditors receiving information from the higher experienced warehouse manager revised their fraud risk assessments to a greater extent than the auditors receiving information from the lower experienced warehouse manager. Thus, H2e is supported[11]. See Table 11 for the results. Further, I examine the extent of revision by fraud condition in order to use a finer measure of revision between the two warehouse manager experience levels.

Fraud Condition

To examine the effects of the warehouse manager's experience level within the fraud condition, I conducted an independent samples t-test to compare the extent to which auditors' revised their fraud risk assessments from Evaluation Task 2 (after reviewing client inquiry evidence from financial personnel) to Evaluation Task 3 (after reviewing client inquiry evidence from the warehouse manager) when information was provided by the warehouse manager in the

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[11] Additionally, I conducted a paired samples t-test for the overall fraud risk assessment in the higher experienced WHM condition and in the lower experienced WHM condition. There was a significant overall fraud risk assessment revision in both conditions between Evaluation Task 2 and Evaluation Task 3. Therefore, auditors significantly revised their fraud risk assessments regardless of the level of experience of the warehouse manager.

higher WHM experience condition as compared to the lower WHM experience condition. There was no significant difference in the extent to which auditors' revised their fraud risk assessment judgments between the higher (M = 2.81, SD = 2.47) and lower WHM experience conditions (M = 2.00, SD = .96); t (19.44) = 1.227, p = .235 (two-tailed). Therefore, I find that, in the fraud condition, overall auditors' fraud risk assessments do not differ significantly based on the level of experience of the warehouse manager from whom they receive audit evidence. See Table 12 for the results.

No Fraud Condition

To examine the effects of the warehouse manager's experience level within the no fraud condition, I conducted an independent samples t-test to compare the extent to which auditors' revised their fraud risk assessments from Evaluation Task 2 (after reviewing client inquiry evidence from financial personnel) to Evaluation Task 3 (after reviewing client inquiry evidence from the warehouse manager) when information was provided by the warehouse manager in the higher WHM experience condition as compared to the lower WHM experience condition. Auditors revised their fraud risk assessments to a greater extent (at the p = .10 level) in the higher WHM experience condition (M = 1.17, SD = .87) than in the lower WHM experience condition (M = .71, SD = 1.09); t (30) = 1.31, p = .0995 (one-tailed). Therefore, I find that, in the no fraud condition, overall auditors' fraud risk assessments do differ significantly based on the level of experience of the warehouse manager from whom they receive audit evidence. See Table 13 for the results. In support of Hypothesis 2e, I find that auditors do revise their fraud risk assessments to a greater extent in the presence of information provided by a warehouse manager with a higher WHM level of experience as compared to auditors' fraud risk revisions in the lower WHM experience condition.

Hypothesis 2f

In considering the characteristics of the financial personnel, I expected to find that auditors will rely more on evidence provided by the warehouse manager in the higher WHM experience condition than in the lower WHM experience condition. Hypothesis 2f was stated as follows: Auditors will revise their trustworthiness, reliability, and truthfulness assessments of financial personnel to a greater extent in the presence of a highly experienced warehouse manager than in the presence of a less experienced warehouse manager. To calculate the extent of belief revision, I used the absolute value of the difference between the auditors' Evaluation Task 2 and Evaluation Task 3 trustworthiness, reliability, and truthfulness assessments of financial personnel. An independent samples t-test was conducted to compare the extent to which auditors' revised their trustworthiness, reliability, and truthfulness assessments of financial personnel from Evaluation Task 2 (after reviewing client inquiry evidence from financial personnel) to Evaluation Task 3 (after reviewing client inquiry evidence from the warehouse manager) when information was provided by the warehouse manager in the higher WHM experience condition as compared to the lower WHM experience condition. There was no significant difference in the extent to which auditors' revised their trustworthiness, reliability, and truthfulness assessments between the higher and lower WHM experience conditions[12]. Therefore, auditors receiving information from the higher experience warehouse manager did not revise their assessments of financial personnel to a greater extent than the auditors receiving information from the lower experience warehouse manager. Thus, H2f is not supported. See Table 11 for the results.

[12] Additionally, I conducted an independent samples t-test for the assessments of financial personnel by fraud condition (fraud only responses and no fraud only responses). There were no significant differences in the assessments of the personnel. See Tables 12 and 13 for the results.

Hypothesis 2g

I expected auditors to incorporate information provided by a more experienced source into their judgments to a greater extent than information provided by a less experienced source. Therefore, Hypothesis 2g was stated as follows: Information provided by a highly experienced warehouse manager will influence auditors' fraud risk assessments more than information provided by a less experienced warehouse manager. An independent samples t-test was conducted to compare the auditors' judgments of the influence of information provided by the warehouse manager on their fraud risk assessment judgments for the lower WHM experience and higher WHM experience conditions. There was no significant difference in the influence of the evidence provided by the warehouse manager on the fraud risk assessment judgments between the higher WHM experience ($M = 7.53$, $SD = 2.21$) and lower WHM experience conditions ($M = 7.78$, $SD = 2.52$); $t\ (62) = -.421$, $p = .675$ (two-tailed). I repeated this analysis for both the fraud and no fraud conditions independently and there was no significant difference between the higher and lower WHM experience conditions within those groups. Thus, the information provided by the warehouse manager did not influence the auditors' fraud risk assessments significantly differently based on the level of experience of the warehouse manager. H2g is not supported. See Tables 11, 12 and 13 for the results.

Evaluation Task 3 Summary

After the presentation of corroborating audit evidence (Evaluation Task 3), auditors are able to effectively evaluate fraud risk, and the truthfulness, trustworthiness, and reliability of financial personnel. In the fraud condition, they increase their fraud risk assessments, while in the no fraud condition they decrease their fraud risk assessments back to a level that is not significantly different from their initial fraud risk beliefs. Further, I provide evidence that auditors are willing to incorporate new audit evidence into their judgments as I find that auditors will significantly revise their judgments of financial personnel's trustworthiness, reliability, and truthfulness.

I also find that auditors are willing to revise their judgments in the presence of inconsistent information regardless of the level of experience of the source of disconfirming evidence. Though, overall, auditors do consider the level of experience of the source of corroborating evidence as evidenced by a greater revision of belief in the presence of a higher experience warehouse manager, particularly when consistent information (no fraud condition) is presented. Please see Table 14 for a summary of each hypothesis and its result.

CHAPTER 5

DISCUSSION

Summary and Conclusions

In an experiment involving 64 auditors, I examined auditors' ability to incorporate multiple pieces of audit evidence from different sources into their fraud risk assessments, trustworthiness, reliability, and truthfulness assessments. As inconsistent information (fraud condition) was presented, auditors increased their fraud risk assessments, and decreased their trustworthiness, reliability, and truthfulness assessments of financial personnel. As consistent information (no fraud condition) was presented, auditors decreased their fraud risk assessments. These results suggest that auditors are willing to revise their initial judgments in light of additional audit evidence and that they appropriately revise their judgments to reflect the audit evidence gathered. I also examined the effects of the level of experience of the source of corroborating evidence on fraud risk assessments, trustworthiness, reliability, and truthfulness assessments, and auditors' extent of revisions of their beliefs. Overall, the level of experience of the source of corroborating evidence had an effect on the extent of auditors' fraud risk revisions, but did not have an effect on their judgments of client personnel.

In practice, auditors assess fraud risk at multiple points throughout an audit. Auditors base their fraud risk assessments on information gleaned from financial statements, analytical procedures, fraud risk factor analysis, and client inquiry evidence. The iterative nature of the fraud risk assessment process calls for the integration of audit evidence collected from multiple sources. Recall that auditors' baseline fraud risk assessments made after the review of financial statements, analytical procedures, and fraud risk factor analysis did not differ between the fraud and no fraud conditions. Auditors were not able to distinguish between financial statements containing a fraudulent material misstatement and ones that were free from a fraudulent material misstatement. Therefore, in cases where fraud is not readily apparent from examining the balances in the financial statements and the results of analytical procedures, an auditor must collect additional audit evidence before successfully identifying fraud.

SAS 99 directs auditors to consider collecting audit evidence from both financial and nonfinancial (operating) personnel (AICPA, 2002). In Evaluation Task 2, auditors reviewed client inquiry evidence from financial personnel (i.e., the CFO and the divisional controller). In both the fraud and the no fraud conditions, the client personnel mentioned that the largest sale of the year occurred on the last day of the year. Auditors recognized that the largest sale occurring on the last day of the year increased fraud risk, and they significantly revised their fraud risk assessments from the baseline fraud risk assessment in both the fraud and no fraud conditions. However, the fraud risk assessments did not differ between the fraud and no fraud conditions even though the financial personnel were deceptive in the fraud condition.

Also in Evaluation Task 2, I measured auditors' initial truthfulness, trustworthiness, and reliability judgments of financial personnel. In the fraud condition, the representations made by the financial personnel were not truthful, while in the no fraud condition, the representations made by the financial personnel were truthful. Auditors in the fraud condition did not evaluate the trustworthiness, reliability, and truthfulness of the financial personnel significantly lower than the auditors in the no fraud condition. Consistent with prior research on deception (Bond & DePaulo, 2006; Lee & Welker, 2007), auditors were not able to appropriately assess the truthfulness of the financial personnel in the fraud condition. Thus, auditors are not able to detect deception immediately following the review of client inquiry evidence from financial personnel. In general, auditors were unable to distinguish between the fraud and no fraud conditions successfully. To properly assess fraud risk and the truthfulness of financial personnel, further audit evidence is required.

SAS 99 notes that because management is in the best position to commit fraud, evidence collected from management responsible for financial reporting should be corroborated with other audit evidence such as client inquiry evidence collected from nonfinancial (operating) personnel. In Evaluation Task 3, auditors reviewed dialogue with a warehouse manager (nonfinancial, operating personnel). In the fraud condition, the warehouse manager provided evidence indicative of a fraudulent sale. As shown in Figure 2, after reviewing the evidence from the warehouse manager, the auditors' fraud risk assessments increased significantly. In the no fraud condition, the warehouse manager provided evidence that was consistent with that provided throughout the task. After integrating the consistent information from the warehouse manager, auditors decreased their fraud risk assessments to levels comparable to their baseline fraud risk assessments.

In both the fraud and no fraud conditions, auditors integrated the audit evidence provided by the nonfinancial (operating) personnel and significantly revised the fraud risk assessments. Therefore, auditors revised their beliefs in light of both inconsistent (fraud) and consistent (no fraud) evidence. In the presence of fraud, auditors improved the effectiveness of the audit process by appropriately increasing their fraud risk assessments in light of inconsistent audit evidence from nonfinancial personnel. Further, in the absence of fraud, auditors increased the efficiency of the audit process by appropriately decreasing their fraud risk assessments after integrating consistent audit evidence from nonfinancial personnel into their judgments. Overall, these findings are consistent with auditors using belief revision as an audit progresses to increase the effectiveness and efficiency of the audit.

Also, after reviewing corroborating evidence, auditors' trustworthiness, reliability, and truthfulness assessments of financial personnel in the fraud condition were significantly lower than those made in the no fraud condition. Therefore, after auditors received inconsistent audit evidence, they appropriately adjusted their judgments of client financial personnel. In effect, auditors revised their assessments of the trustworthiness, reliability, and truthfulness of the financial personnel. This belief revision may influence subsequent audit procedures such as their nature, timing, and extent and the reliability of the audit evidence collected from the client financial personnel.

Additionally, I examined the effects of the level of experience of the warehouse manager on auditors' judgments and found that when fraud was present, the level of the experience of the warehouse manager did not affect their judgments. However, in the absence of fraud and when the audit evidence was consistent throughout the audit task, I found that auditors revised their overall fraud risk assessments (Evaluation Task 3) to a greater extent when they received audit evidence from a warehouse manager with a higher level of experience than one with a lower level of experience. Therefore, I provided evidence that auditors do consider the level of experience of the source of corroborating evidence when the evidence provided was consistent with the evidence already collected.

Implications

For Researchers

By capturing auditors' judgments at multiple points throughout the study, I provided evidence of auditors' ability to incorporate information from multiple sources into their fraud risk assessments and of their willingness to revise their fraud risk assessments and assessments of client personnel in light of new evidence. The results of this study enhanced our understanding of the belief adjustment model in auditing by providing insight as to how auditors process both confirming (consistent) and disconfirming (inconsistent) information. Though prior belief adjustment research has indicated that auditors are more sensitive to disconfirming audit evidence possibly due to professional skepticism (Kahle, Pinsker, & Pennington, 2005), I provided evidence that auditors were sensitive to both confirming and disconfirming evidence. In the presence of consistent information, auditors decreased their beliefs to a level consistent with their baseline level recorded before they received audit evidence detailing a fraud risk factor. Therefore, when auditors were given a rich data set similar to the one available to them during an audit, they incorporated both confirming and disconfirming evidence into their judgments. Though prior research has found auditors to be more sensitive to disconfirming evidence, I found that they would respond to confirming evidence by reducing their fraud risk assessments when given the opportunity to revise their beliefs.

I contributed to the psychology literature that examines assessing truthfulness and detecting deception by providing evidence that participants assessed truthfulness appropriately when triangulating information was available to them, not just verbal and nonverbal cues, but rather evidence that existed outside of the deceptive communication. Though, in prior research, people have been found to be generally poor detectors of deception using affective cues, results from this study indicated that people were better at detecting deception using an information triangulation approach. Individuals' ability to assess truthfulness immediately following a deceptive communication may be limited, but given the opportunity to integrate additional corroborating information and revise their beliefs, individuals were able to appropriately assess truthfulness.

I extended deception detection research by considering auditors' ability to triangulate information received during client inquiry. Specifically, results of this study provided evidence regarding auditors' ability to assess client trustworthiness, reliability, and truthfulness when audit evidence was available prior to and subsequent to the deceptive communication with the client. Auditors were able to assess client truthfulness more accurately after they received inconsistent information from a source outside of the deceptive communication; therefore, auditors were able to appropriately assess truthfulness when subsequent inconsistent audit evidence was gathered. Further, I found that auditors' revised their assessments of client trustworthiness, reliability, and truthfulness after inconsistent information was presented.

For Practitioners and Professionals

Auditors must integrate audit evidence from multiple sources to improve the effectiveness and efficiency of the audit process. In the presence of fraud, auditors may increase the effectiveness of the audit process by incorporating inconsistent audit evidence into their judgments; while, in the absence of fraud, after the presentation of consistent audit evidence from a corroborating source, auditors may increase the efficiency of the audit process by decreasing their fraud risk assessments in response to additional consistent audit evidence. The results presented in this study indicate that auditors should consider gathering additional audit evidence from several sources following communication with a client's financial personnel. Additionally, auditors should consider collecting audit evidence from others within the entity with varied backgrounds. As SAS 99 suggests, auditors should consider gathering information from nonfinancial (operating) personnel, such as a warehouse manager, who would not have a direct interest in the company's financial statements.

As shown by Lee and Welker (2007), an increase in training may not be enough to effectively increase auditors' ability to detect deception. Auditors' ability to accurately assess truthfulness may be increased by maintaining awareness of attempts at persuasion by management, and by triangulating information provided by client management personnel subsequent to the client communication. The results of this study indicate that auditors are able to incorporate inconsistent information from operating personnel into their audit judgments and use this information to triangulate evidence from financial personnel from an operations perspective.

Limitations

There are limitations that should be noted. In this study, I provided only a small subsection of analytical procedures results and fraud risk assessment results. In the audit environment, auditors would be required to self select the applicable portions of the analytical procedures results and fraud risk assessment results based on the task of interest. Further, in the audit environment, auditors have more information about the client and the client's situation than that which is given in the current study. Therefore, future researchers may present auditors with the full results from the analytical procedures and fraud risk assessment, and task the auditors with identifying the information needed for the audit judgments. This would also gauge auditors' ability to parse out information that is relevant from information that is extraneous, thereby increasing the complexity of the task to a level comparable with that which may be found in the audit environment.

Prior researchers have noted that common method bias may occur "when multiple judgments are made by a respondent using the same scale, respondents use their initial ratings to anchor the scale and thereby influence the scaling of their subsequent judgments" (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003, p. 887). I address this issue, in a manner consistent with Carpenter (2007), by changing the scale end points used between the items in each judgment; however, the scales used for repeated judgments remain consistent throughout the evaluations. Further, I attempted to reduce evaluation apprehension by informing the participants that there were no right or wrong answers (Podsakoff, et al., 2003). I addressed several common method biases through careful instrument and scale development, including developing specific questions that are not double-barreled; however, the reader should be aware of potential effects.

Future Research

While I extend current research by providing multiple elements of information available to auditors, I do not provide participants with information generated during an audit team brainstorming session. This information would be available to the auditor and would influence the auditor's fraud risk assessment (Carpenter, 2007). Future researchers may incorporate all information available to auditors and therefore, include results of the audit team brainstorming session prior to asking participants for a fraud risk assessment evaluation.

By embedding untruthful information in the fraud condition as inconsistent evidence, I do not address the affective cues that are sometimes present with deception. Using an approach similar to Lee and Welker (2007), future researchers may provide prior audit evidence as I do in this study and then provide taped interviews of deceivers and truth-tellers. Following the interviews, the researcher may provide corroborating evidence which auditors may use to revise initial client truthfulness judgments.

Though I successfully manipulated the level of experience of the source of corroborating evidence (i.e. the warehouse manager), I did not find that this variable had a significant effect on auditors' willingness to incorporate the information provided by the source when fraud was present. Also, though the auditors evaluated the higher and lower experienced warehouse manager conditions as significantly different, auditors' evaluation of the level of experience of the warehouse manager in the lower experience condition was not statistically significantly different from the mid-point of the scale (5). Therefore, the auditors may have considered the warehouse manager in the lower experience condition as having an appropriate level of experience and relied on the information he provided. There are other source characteristics to be considered that may influence an auditors' evaluation of the evidence. For example, manipulating the credibility of the source of corroborating evidence may have an effect on auditors' reliance on the evidence. Future research may consider linking a characteristic of the source of corroborating evidence with a characteristic of the appropriateness of audit evidence as specified by AU Section 326 (AICPA, 2007), such as the reliability of the audit evidence. For example, the source of corroborating evidence may be described as a member of client personnel or an independent, knowledge source outside of the client.

Finally, researchers may examine the effectiveness of alternative truthfulness assessments and deception detection techniques, such as a team approach to client inquiry, on auditors' ability to assess fraud. Prior research in deception has found that participation in the communication may sometimes impede the receiver's ability to detect deception (Dunbar, Ramirez, & Burgoon, 2003). Therefore, a team approach to client inquiry with only one auditor actively participating in the communication may yield better client truthfulness assessments results and therefore, more accurate fraud risk assessments. The research may shed light on an auditor's ability to assess client truthfulness (i.e. detect deception) when participating as part of an inquiry team.

FIGURES

Figure 1. Application of Belief Adjustment Model to the Audit Evidence Collection Process and the Experimental Procedure

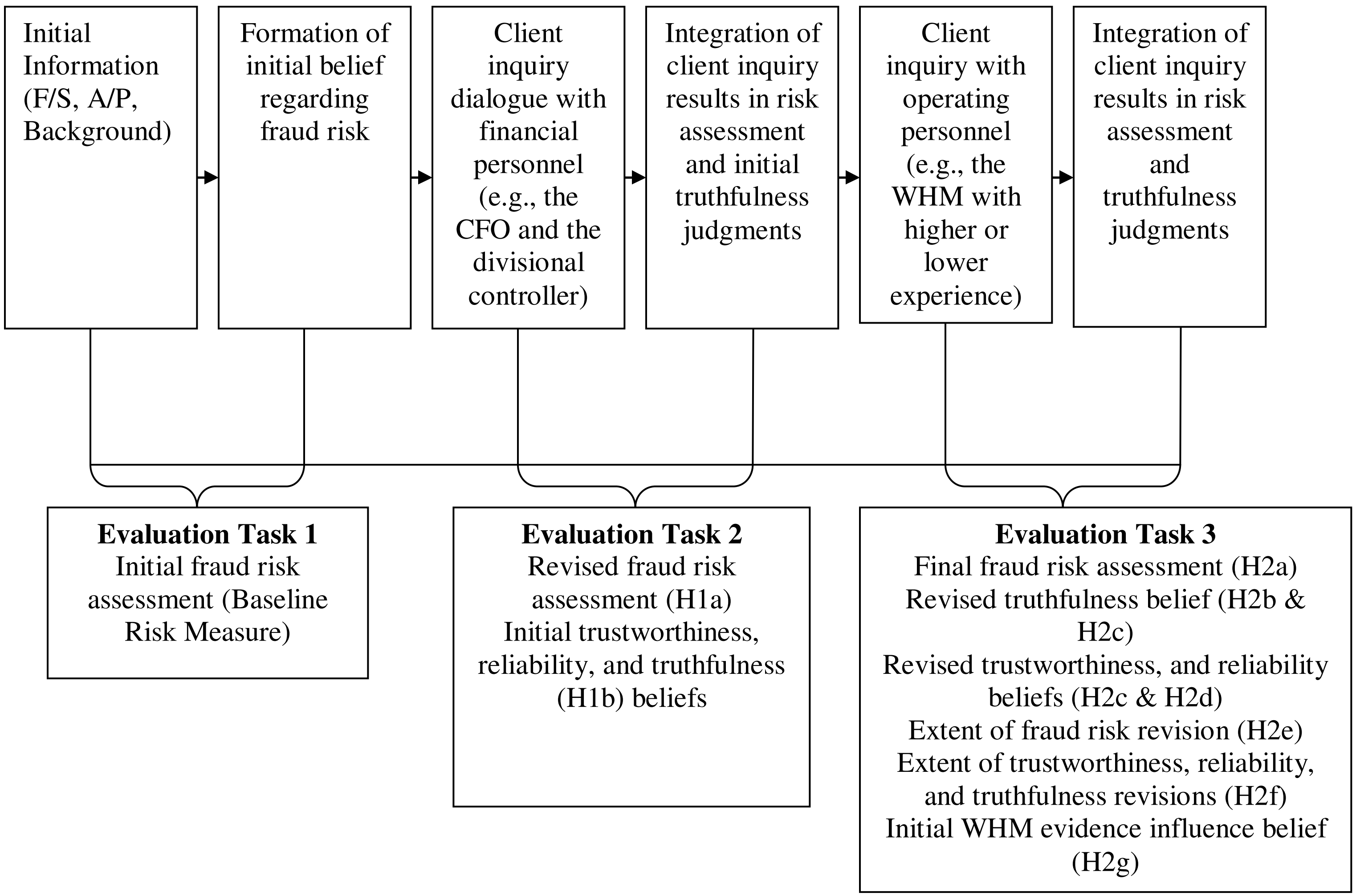
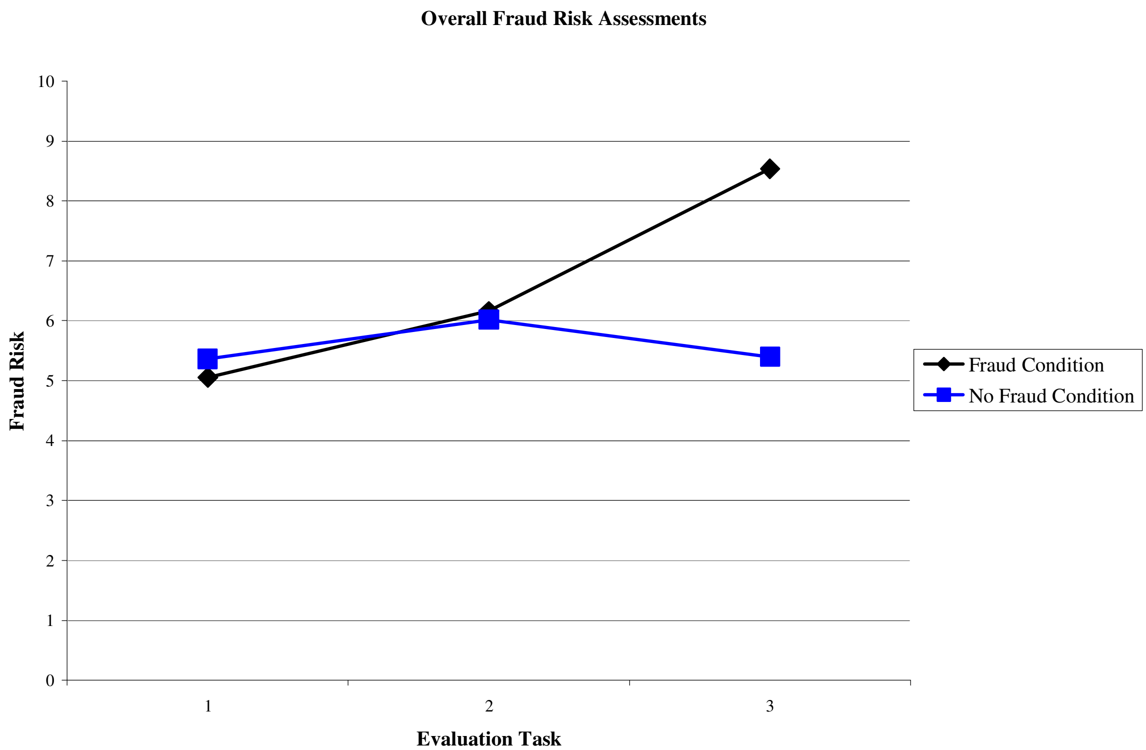


Figure 2. Overall Fraud Risk Assessments by Condition



TABLES

Table 1

Rank Frequency and Experience by Condition

Level	Position	Overall Study Count	%	Case 1 - Fraud, Higher WHM Experience Count	Case 2 - No Fraud, Higher WHM Experience Count	Case 3 - Fraud, Lower WHM Experience Count	Case 4 - No Fraud, Lower WHM Experience Count
1	Staff (2)/Senior	23	35.94%	3	7	6	7
2	Manager/Senior Manager	23	35.94%	8	7	4	4
3	Partner	18	28.13%	5	2	6	5
Total		64	100.00%	16	16	16	16
Average Years Experience		10.80		11.26	8.03	12.41	11.50

Table 2

Evaluation Task 1 Dependent Measures: Means (Standard Deviations) and Independent Samples T-test

	Measure Description	Fraud (n=32) Mean (SD)	No Fraud (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Evaluation Task 1	Likelihood of Risk[a]	5.06 (1.95)	5.31 (1.65)	(0.55)	0.58
	Significance of Risk[b]	5.81 (2.26)	6.03 (1.86)	(0.42)	0.67
	Pervasiveness of Risk[c]	4.28 (2.29)	4.75 (1.81)	(0.91)	0.37
	Overall Fraud Risk	5.05 (1.81)	5.36 (1.51)	(0.75)	0.46
	Client Business Risk[d]	5.28 (2.02)	5.31 (1.86)	(0.06)	0.95

[a]Likelihood of risk endpoints are 0 "Extremely unlikely" to 10 " Extremely likely" with a mid-point of 5 "Neutral".

[b]Significance of risk endpoints are 0 "Highly insignificant" to 10 "Highly significant" with a mid-point of 5 "Neutral".

[c]Pervasiveness of risk endpoints are 0 "Extremely non-pervasive" to 10 " Extremely pervasive" with a mid-point of 5 "Neutral".

[d]Client business risk endpoints are 0 "Extremely low" to 10 " Extremely high" with a mid-point of 5 "Neutral".

Table 3

Evaluation Task 2 Dependent Measures: Means (Standard Deviations) and Independent Samples T-test

	Measure Description	Fraud (n=32) Mean (SD)	No Fraud (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Evaluation Task 2	Likelihood of Risk	6.00	5.97	0.07	0.94
		(1.98)	(1.36)		
	Significance of Risk	6.78	6.56	0.48	0.64
		(2.09)	(1.54)		
	Pervasiveness of Risk	5.69	5.53	0.29	0.78
		(2.56)	(1.74)		
	Overall Fraud Risk	6.16	6.02	0.34	0.74
		(1.95)	(1.14)		
	Client Business Risk	5.72	5.66	0.15	0.88
		(1.71)	(1.68)		
	CFO Trustworthiness	5.75	5.28	1.41	0.17
		(1.32)	(1.35)		
	CFO Reliable	5.75	5.31	1.15	0.26
		(1.39)	(1.66)		
	CFO Truthfulness	5.41	5.34	0.16	0.88
		(1.66)	(1.49)		
	DC Trustworthiness	6.06	5.78	0.75	0.46
		(1.08)	(1.85)		
	DC Reliable	5.91	5.97	(0.20)	0.84
		(1.03)	(1.43)		
	DC Truthfulness	5.34	5.72	(0.95)	0.34
		(1.52)	(1.63)		
	Financial Personnel Trustworthiness	5.91	5.53	1.14	0.26
		(1.07)	(1.51)		
	Financial Personnel Reliability	5.83	5.64	0.60	0.55
		(1.04)	(1.45)		
	Financial Personnel Truthfulness	5.38	5.53	(0.43)	0.67
		(1.45)	(1.49)		

Table 4

Dependent Measures in the Fraud Condition: Means (Standard Deviations) and Paired Samples T-test

Measure Description	Evaluation Task 1 (n=32) Mean (SD)	Evaluation Task 2 (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Likelihood of Risk	5.06	6.00	(4.02)	0.00
	(1.95)	(1.98)		
Significance of Risk	5.81	6.78	(3.57)	0.00
	(2.26)	(2.09)		
Pervasiveness of Risk	4.28	5.69	(3.80)	0.00
	(2.29)	(2.56)		
Overall Fraud Risk	5.05	6.16	(5.03)	0.00
	(1.81)	(1.95)		
Client Business Risk	5.28	5.72	(1.78)	0.09
	(2.02)	(1.71)		

Table 5

Dependent Measures in the No Fraud Condition: Means (Standard Deviations) and Paired Samples T-test

Measure Description	Evaluation Task 1 (n=32) Mean (SD)	Evaluation Task 2 (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Likelihood of Risk	5.31	5.97	(2.69)	0.01
	(1.66)	(1.36)		
Significance of Risk	6.03	6.56	(2.00)	0.05
	(1.86)	(1.54)		
Pervasiveness of Risk	4.75	5.53	(2.60)	0.01
	(1.81)	(1.74)		
Overall Fraud Risk	5.36	6.02	(2.82)	0.01
	(1.51)	(1.14)		
Client Business Risk	5.31	5.66	(1.32)	0.19
	(1.86)	(1.68)		

Table 6

Dependent Measures in the Fraud Condition: Means (Standard Deviations) and Paired Samples T-test

Measure Description	Evaluation Task 2 (n=32) Mean (SD)	Evaluation Task 3 (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Likelihood of Risk	6.00	9.16	(8.46)	0.00
	(1.98)	(0.95)		
Significance of Risk	6.78	9.06	(6.34)	0.00
	(2.09)	(1.01)		
Pervasiveness of Risk	5.69	7.41	(4.03)	0.00
	(2.56)	(2.88)		
Overall Fraud Risk	6.16	8.54	(7.05)	0.00
	(1.95)	(1.34)		
Client Business Risk	5.72	7.34	(5.89)	0.00
	(1.71)	(1.38)		
CFO Trustworthiness	5.75	2.75	6.93	0.00
	(1.32)	(2.05)		
CFO Reliable	5.75	2.94	6.19	0.00
	(1.39)	(2.14)		
CFO Truthfulness	5.41	2.66	5.98	0.00
	(1.66)	(2.61)		
DC Trustworthiness	6.06	3.31	6.85	0.00
	(1.08)	(2.33)		
DC Reliable	5.91	2.97	8.67	0.00
	(1.03)	(1.94)		
DC Truthfulness	5.34	3.41	3.89	0.00
	(1.52)	(2.87)		
Financial Personnel Trustworthiness	5.91	3.03	8.99	0.00
	(1.07)	(1.72)		
Financial Personnel Reliability	5.83	2.95	7.85	0.00
	(1.04)	(1.88)		
Financial Personnel Truthfulness	5.38	3.03	5.84	0.00
	(1.45)	(2.40)		

Table 7

Dependent Measures in the No Fraud Condition: Means (Standard Deviations) and Paired Samples T-test

Measure Description	Evaluation Task 2 (n=32) Mean (SD)	Evaluation Task 3 (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Likelihood of Risk	5.97	5.44	2.20	0.04
	(1.36)	(1.85)		
Significance of Risk	6.56	5.88	2.92	0.01
	(1.54)	(2.08)		
Pervasiveness of Risk	5.53	4.88	2.73	0.01
	(1.74)	(1.91)		
Overall Fraud Risk	6.02	5.40	2.89	0.01
	(1.14)	(1.76)		
Client Business Risk	5.66	4.84	2.33	0.03
	(1.68)	(1.82)		
CFO Trustworthiness	5.28	5.34	(0.31)	0.76
	(1.35)	(1.38)		
CFO Reliable	5.31	5.38	(0.28)	0.78
	(1.66)	(1.45)		
CFO Truthfulness	5.34	5.28	0.21	0.83
	(1.49)	(1.46)		
DC Trustworthiness	5.78	5.88	(0.37)	0.72
	(1.85)	(1.36)		
DC Reliable	5.97	5.94	0.14	0.89
	(1.43)	(1.16)		
DC Truthfulness	5.72	5.69	0.09	0.93
	(1.63)	(1.58)		
Financial Personnel Trustworthiness	5.53	5.61	(0.40)	0.70
	(1.51)	(1.29)		
Financial Personnel Reliability	5.64	5.66	(0.08)	0.94
	(1.45)	(1.19)		
Financial Personnel Truthfulness	5.53	5.48	0.17	0.87
	(1.49)	(1.36)		

Table 8

Evaluation Task 3 Dependent Measures: Means (Standard Deviations) and Independent Samples T-test

	Measure Description	Fraud (n=32) Mean (SD)	No Fraud (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Evaluation Task 3	Likelihood of Risk	9.16 (0.95)	5.44 (1.85)	10.12	0.00
	Significance of Risk	9.06 (1.01)	5.88 (2.08)	7.81	0.00
	Pervasiveness of Risk	7.41 (2.88)	4.88 (1.91)	4.14	0.00
	Overall Fraud Risk	8.54 (1.34)	5.40 (1.76)	8.04	0.00
	Client Business Risk	7.34 (1.38)	4.84 (1.82)	6.20	0.00
	WHM Experience Level	6.38 (2.15)	6.72 (1.67)	(0.71)	0.48
	WHM Trustworthiness	5.47 (3.09)	6.19 (1.89)	(1.12)	0.27
	WHM Reliable	5.25 (2.99)	6.28 (1.99)	(1.62)	0.11
	WHM Truthfulness	3.06 (2.31)	4.44 (2.24)	(2.41)	0.02
	WHM Evidence Influence	9.19 (1.12)	6.13 (2.28)	6.81	0.00
	CFO Trustworthiness	2.75 (2.05)	5.34 (1.38)	(5.94)	0.00
	CFO Reliable	2.94 (2.14)	5.38 (1.45)	(5.33)	0.00
	CFO Truthfulness	2.66 (2.61)	5.28 (1.46)	(4.96)	0.00
	DC Trustworthiness	3.31 (2.33)	5.88 (1.36)	(5.36)	0.00
	DC Reliable	2.97 (1.94)	5.94 (1.16)	(7.42)	0.00
	DC Truthfulness	3.41 (2.87)	5.69 (1.58)	(3.94)	0.00
	Financial Personnel Trustworthiness	3.03 (1.72)	5.61 (1.29)	(6.78)	0.00
	Financial Personnel Reliable	2.95 (1.88)	5.66 (1.19)	(6.86)	0.00
	Financial Personnel Truthfulness	3.03 (2.40)	5.48 (1.36)	(5.03)	0.00

Table 9

Dependent Measures in the Fraud Condition: Means (Standard Deviations) and Paired Samples T-test

Measure Description	Evaluation Task 1 (n=32) Mean (SD)	Evaluation Task 3 (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Likelihood of Risk	5.06	9.16	(11.28)	0.00
	(1.95)	(0.95)		
Significance of Risk	5.81	9.06	(8.53)	0.00
	(2.26)	(1.01)		
Pervasiveness of Risk	4.28	7.41	(5.87)	0.00
	(2.29)	(2.88)		
Overall Fraud Risk	5.05	8.54	(10.15)	0.00
	(1.81)	(1.34)		
Client Business Risk	5.28	7.34	(5.17)	0.00
	(2.02)	(1.38)		

Table 10

Dependent Measures in the No Fraud Condition: Means (Standard Deviations) and Paired Samples T-test

Measure Description	Evaluation Task 1 (n=32) Mean (SD)	Evaluation Task 3 (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Likelihood of Risk	5.31	5.44	(0.45)	0.65
	(1.66)	(1.85)		
Significance of Risk	6.03	5.88	0.51	0.61
	(1.86)	(2.08)		
Pervasiveness of Risk	4.75	4.88	(0.36)	0.72
	(1.81)	(1.91)		
Overall Fraud Risk	5.36	5.40	(0.11)	0.91
	(1.51)	(1.76)		
Client Business Risk	5.31	4.84	1.27	0.22
	(1.86)	(1.82)		

Table 11

Dependent Measures: Means (Standard Deviations) and Independent Samples T-test

	Measure Description	Higher WHM Experience (n=32) Mean (SD)	Lower WHM Experience (n=32) Mean (SD)	T-Stat	P Value (two-tailed)
Evaluation Task 3	Likelihood of Risk	6.81 (2.56)	7.78 (2.11)	(1.65)	0.103
	Significance of Risk	7.06 (2.50)	7.88 (2.00)	(1.44)	0.156
	Pervasiveness of Risk	5.88 (2.62)	6.41 (2.87)	(0.77)	0.443
	Overall Fraud Risk	6.58 (2.39)	7.35 (2.00)	(1.40)	0.166
	Overall Fraud Risk Revision (Evaluation Task 2 to 3)	1.99 (2.00)	1.35 (1.20)	1.54	0.130
	Client Business Risk	5.97 (2.09)	6.22 (2.01)	(0.49)	0.627
	WHM Experience Level	7.56 (1.41)	5.53 (1.83)	4.97	0.000
	WHM Trustworthiness	6.06 (2.58)	5.59 (2.58)	0.73	0.470
	WHM Reliable	5.84 (2.52)	5.69 (2.67)	0.24	0.810
	WHM Truthfulness	3.94 (2.53)	3.56 (2.21)	0.63	0.530
	WHM Evidence Influence	7.53 (2.21)	7.78 (2.52)	(0.42)	0.675
	CFO Trustworthiness	4.22 (2.23)	3.88 (2.14)	0.63	0.531
	CFO Reliable	4.28 (2.25)	4.03 (2.16)	0.45	0.652
	CFO Truthfulness	4.13 (2.52)	3.81 (2.47)	0.50	0.618
	DC Trustworthiness	4.59 (2.31)	4.59 (2.31)	0.00	1.000
	DC Reliable	4.56 (2.18)	4.34 (2.21)	0.40	0.692
	DC Truthfulness	4.84 (2.49)	4.25 (2.65)	0.92	0.359
	Financial Personnel Trustworthiness	4.41 (1.90)	4.23 (2.10)	0.34	0.733
	Financial Personnel Trustworthiness Revision (Evaluation Task 2 to 3)	1.61 (1.58)	2.03 (1.90)	(0.96)	0.339
	Financial Personnel Reliability	4.42 (2.03)	4.19 (2.14)	0.45	0.655
	Financial Personnel Reliability Revision (Evaluation Task 2 to 3)	1.73 (1.96)	2.00 (1.75)	(0.57)	0.569
	Financial Personnel Truthfulness	4.48 (2.17)	4.03 (2.43)	0.79	0.435
	Financial Personnel Truthfulness Revision (Evaluation Task 2 to 3)	1.92 (1.58)	1.97 (1.74)	(0.11)	0.910

Table 12

Dependent Measures in the Fraud Condition: Means (Standard Deviations) and Independent Samples T-test

	Measure Description	Higher WHM Experience (n=16) Mean (SD)	Lower WHM Experience (n=16) Mean (SD)	T-Stat	P Value (two-tailed)
Evaluation Task 3	Likelihood of Risk	8.81 (1.05)	9.50 (0.73)	(2.16)	0.039
	Significance of Risk	8.81 (1.05)	9.31 (0.95)	(1.42)	0.167
	Pervasiveness of Risk	7.31 (2.50)	7.50 (3.31)	(0.18)	0.858
	Overall Fraud Risk	8.31 (1.29)	8.77 (1.40)	(0.96)	0.343
	Overall Fraud Risk Revision (Evaluation Task 2 to 3)	2.81 (2.47)	2.00 (0.96)	1.23	0.235
	Client Business Risk	7.31 (1.45)	7.38 (1.36)	(0.13)	0.901
	WHM Experience Level	7.50 (1.63)	5.25 (2.05)	3.44	0.002
	WHM Trustworthiness	6.06 (3.09)	4.88 (3.07)	1.09	0.284
	WHM Reliable	5.50 (3.03)	5.00 (3.03)	0.47	0.644
	WHM Truthfulness	2.94 (2.46)	3.19 (2.23)	(0.30)	0.765
	WHM Evidence Influence	8.81 (1.38)	9.56 (0.63)	(1.98)	0.057
	CFO Trustworthiness	3.06 (2.27)	2.44 (1.83)	0.86	0.397
	CFO Reliable	3.31 (2.39)	2.56 (1.86)	0.99	0.329
	CFO Truthfulness	3.06 (2.86)	2.25 (2.35)	0.88	0.387
	DC Trustworthiness	3.25 (2.27)	3.38 (2.47)	(0.15)	0.882
	DC Reliable	3.00 (1.83)	2.94 (2.11)	0.09	0.929
	DC Truthfulness	4.00 (3.01)	2.81 (2.69)	1.18	0.249
	Financial Personnel Trustworthiness	3.16 (1.51)	2.91 (1.95)	0.41	0.688
	Financial Personnel Trustworthiness Revision (Evaluation Task 2 to 3)	2.50 (1.63)	3.25 (1.95)	(1.18)	0.247
	Financial Personnel Reliability	3.16 (1.89)	2.75 (1.91)	0.61	0.550
	Financial Personnel Reliability Revision (Evaluation Task 2 to 3)	2.75 (2.16)	3.25 (1.58)	(0.75)	0.461
	Financial Personnel Truthfulness	3.53 (2.36)	2.53 2.40	1.19	0.245
	Financial Personnel Truthfulness Revision (Evaluation Task 2 to 3)	2.53 (1.62)	3.03 (1.77)	(0.84)	0.410

Table 13

Dependent Measures in the No Fraud Condition: Means (Standard Deviations) and Independent Samples T-test

	Measure Description	Higher WHM Experience (n=16) Mean (SD)	Lower WHM Experience (n=16) Mean (SD)	T-Stat	P Value (two-tailed)
Evaluation Task 3	Likelihood of Risk	4.81	6.06	(2.00)	0.054
		(1.97)	(1.53)		
	Significance of Risk	5.31	6.44	(1.57)	0.127
		(2.30)	(1.71)		
	Pervasiveness of Risk	4.44	5.31	(1.31)	0.201
		(1.90)	(1.89)		
	Overall Fraud Risk	4.85	5.94	(1.81)	0.081
		(1.94)	(1.41)		
	Overall Fraud Risk Revision (Evaluation Task 2 to 3)	1.17	0.71	1.31	0.199
		(0.87)	(1.09)		
	Client Business Risk	4.63	5.06	(0.68)	0.505
		(1.75)	(1.91)		
	WHM Experience Level	7.63	5.81	3.62	0.001
		(1.20)	(1.60)		
	WHM Trustworthiness	6.06	6.31	(0.37)	0.715
		(2.05)	(1.78)		
	WHM Reliable	6.19	6.38	(0.26)	0.795
		(1.91)	(2.13)		
	WHM Truthfulness	4.94	3.94	1.27	0.212
		(2.24)	(2.21)		
	WHM Evidence Influence	6.25	6.00	0.31	0.762
		(2.18)	(2.45)		
	CFO Trustworthiness	5.38	5.31	0.13	0.901
		(1.50)	(1.30)		
	CFO Reliable	5.25	5.50	(0.48)	0.634
		(1.65)	(1.27)		
	CFO Truthfulness	5.19	5.38	(0.36)	0.724
		(1.60)	(1.36)		
	DC Trustworthiness	5.94	5.81	0.26	0.800
		(1.44)	(1.33)		
	DC Reliable	6.13	5.75	0.91	0.370
		(1.15)	(1.18)		
	DC Truthfulness	5.69	5.69	0.00	1.000
		(1.49)	(1.70)		
	Financial Personnel Trustworthiness	5.66	5.56	0.20	0.841
		(1.36)	(1.25)		
	Financial Personnel Trustworthiness Revision (Evaluation Task 2 to 3)	0.72	0.81	(0.33)	0.747
		(0.91)	(0.70)		
	Financial Personnel Reliability	5.69	5.63	0.15	0.885
		(1.25)	(1.18)		
	Financial Personnel Reliability Revision (Evaluation Task 2 to 3)	0.72	0.75	(0.10)	0.920
		(1.02)	(0.71)		
	Financial Personnel Truthfulness	5.44	5.53	(0.19)	0.850
		(1.48)	(1.28)		
	Financial Personnel Truthfulness Revision (Evaluation Task 2 to 3)	1.31	0.91	1.03	0.309
		(1.31)	0.86		

Table 14. *Hypotheses Results Summary*

Hypothesis	**Hypothesis Statement**	**Test Performed**	**Result**
H1a	When client inquiry information is provided by credible sources (e.g., the CFO and the divisional controller), auditors' fraud risk assessments will not differ significantly between the presence of fraud and absence of fraud conditions. (Fraud to No Fraud)	Independent samples t-test	Hypothesis supported
H1b	In the presence of fraud, auditors' initial truthfulness judgments of financial personnel (e.g., the CFO and divisional controller) will not differ significantly from auditors' truthfulness judgments in the absence of fraud. (Fraud to No Fraud)	Independent samples t-test	Hypothesis supported
H2a	In the presence of fraud, auditors will significantly increase their fraud risk assessments after the presentation of inconsistent audit evidence from operating personnel. (Fraud Cases Only)	Paired samples t-test	Hypothesis supported
H2b	Auditors' final truthfulness judgments of financial personnel (e.g., the CFO and the divisional controller) will be lower in the presence of fraud than in the absence of fraud. (Fraud to No Fraud)	Independent samples t-test	Hypothesis supported
H2c	In the presence of fraud, auditors will significantly revise their trustworthiness, reliability, and truthfulness assessments of financial personnel (e.g., the CFO and the divisional controller) after inconsistent information is reviewed. (Fraud Cases Only)	Paired samples t-test	Hypothesis supported
H2d	In the presence of fraud, auditors' final trustworthiness and reliability assessments of financial personnel (e.g., the CFO and the divisional controller) will be lower than those made in the absence of fraud. (Fraud to No Fraud)	Independent samples t-test	Hypothesis supported

H2e	Auditors will revise their fraud risk assessments to a greater extent in the presence of information provided by a highly experienced warehouse manager than information provided by a less experienced warehouse manager. (Higher to Lower WHM Experience)	Independent samples t-test	Hypothesis supported
H2f	Auditors will revise their trustworthiness, reliability and truthfulness assessments of financial personnel to a greater extent in the presence of a highly experienced warehouse manager than in the presence of a less experienced warehouse manager. (Higher to Lower WHM Experience)	Independent samples t-test	Hypothesis not supported
H2g	Information provided by a highly experienced warehouse manager will influence auditors' fraud risk assessments more than information provided by a less experienced warehouse manager. (Higher to Lower WHM Experience)	Independent samples t-test	Hypothesis not supported

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APPENDICES

APPENDIX A
Case 1 – Fraud Condition/Warehouse Manager/Higher Experience

Audit Judgment Study

Tab 1
Introduction

This study concerns a judgment and decision-making task in an auditing context. You will be asked to assume the role of auditor evaluating a hypothetical client.

There are three parts to the study. First, you will read a description of a current audit client, view the results of some analytical procedures and the results of the fraud risk assessment. Next, you will read the dialogue from the client inquiry with the Chief Financial Officer and the Divisional Controller followed by the dialogue from the client inquiry with other client personnel. There are three evaluation tasks to record your judgments. There are no right or wrong answers in this study; rather, you will be asked to come up with your best judgment given the information provided.

Information about the company and each evaluation task appear on separate tabs throughout the exercise. Please read through and complete the tabs in order (proceeding from top to bottom). Once you have completed and saved an evaluation task, you will be able to access that tab again, but you will not be able to edit your responses. The tabs containing company information will be available for review throughout the task.

I am a PhD student at Virginia Tech and this research case is part of my program of study for my doctorate. As a former auditor, I realize that your time is very valuable and I appreciate your willingness to participate.

To encourage participation, I will be selecting three individuals from the pool of participants to receive a $100 Visa gift card. At the conclusion of the study, winners of the drawing will be contacted via e-mail during the following week. You may opt out of the drawing and still participate in the survey.

Participation in this study will take approximately 30 to 40 minutes. If you have any questions or concerns, please contact me via email (meabell@vt.edu). Thank you for your assistance!

Meghann Abell Cefaratti

Please click on the following tab to begin the case by reviewing the company's background information.

Tab 2
The Audit

You are part of the audit team assigned to the October 31, 2008 year-end audit for MicroTech. The company is subject to the normal reporting requirements of a publicly-owned company. The accounting functions are centralized and all transactions are processed in the main office. During the past three years, the company made no significant accounting policy changes.

Your firm has audited MicroTech for several years. Each of those years, the company has received an unqualified audit opinion. Relations between the audit team and management have been good in the past.

Background Information – MicroTech, Inc.

MicroTech, Inc. is a leading global developer, publisher and distributor of interactive software games. Its software operates on PCs and video game consoles manufactured by Sony, Nintendo and Sega. They develop software internally and engage third parties to develop software on their behalf. They publish software under multiple well-known labels.

They sell internally developed software as well as third-party software to retail outlets in the United States. For the year ending October 31, 2008 the sale of third-party products accounted for approximately 47.8% of company revenues, with sales to their five largest customers accounting for approximately 20.0% of revenues. No single customer accounted for more than 10% of revenues during this period. Their customers include WalMart, Toys R Us, Electronics Boutique, Babbage's, Best Buy and Ames Department Stores, as well as leading national and regional drug store, supermarket and discount store chains and specialty retailers. They also have publishing and distribution operations in several foreign countries.

A large and growing installed base of advanced PCs and video game consoles combined with expanding gamer demographics have driven demand for interactive software games in recent years. Increased demand for interactive software is expected as a result of the emergence of next-generation platforms which are designed to exploit the convergence of computing, digital technologies and the Internet.

They release games with potential for broad consumer appeal. The company released more than sixty games during the year ending October 31, 2008. Their five best-selling games, in the aggregate, accounted for approximately 12.0% of their revenues. They plan to deliver high-profile game content for both PC and evolving console markets, particularly for next-generation platforms with potential for significant market penetration. Sales of the games are seasonal, with peak shipments typically occurring in the fourth calendar quarter (the fourth and first fiscal quarters) as a result of increased demand for the games during the holiday season.

The company's marketing and promotional efforts are intended to maximize exposure and broaden distribution of their games, promote brand name recognition, assist retailers and properly position, package and merchandise their games. They market the games by implementing aggressive public relations campaigns, primarily using print and on-line advertising and to a lesser extent television and radio spots. They also employ various other

marketing methods designed to promote consumer awareness, including in-store promotions and point-of-purchase displays, direct mail, cooperative advertising, attendance at trade shows, as well as the use of distinctive packaging.

The principal sources of revenues are derived from publishing and distribution operations. Publishing revenues are derived from the sale of internally developed software or software licensed from third parties. Distribution revenues are derived from the sale of third-party software and hardware. They recognize revenue from software sales when product ownership and risk of loss pass to their customers.

In the market for video games, the demand for specific games can differ from expectations. When demand for specific games falls below expectations, the company does sometimes accept returns. At the time of the original sale, a reserve for future returns is established and the company recognizes revenues net of returns. The reserve amount is based on return policies and historical return rates. If future returns significantly exceed return reserves, operating results would be adversely affected.

Please click on the following tab to review the company's 2008 unaudited financial statements and 2007 audited financial statements.

Tab 3
Unaudited Financial Information Provided by MicroTech

The income statement and balance sheet for the current year (2008) and the prior year (2007) are provided below.

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
Net Sales	$387,006	$305,932
Cost of goods sold	247,796	215,122
Gross Profit	139,210	90,810
Operating Expenses:		
Selling and marketing	42,854	30,108
General and administrative	36,409	25,236
Research and development costs	5,668	5,263
Depreciation and amortization	9,805	2,822
Other, net	(587)	0
Total operating expenses	94,149	63,429
Income from operations	45,061	27,381
Interest expense, net	6,069	2,910
Equity in loss of affiliate	763	45
Total non-operating expenses	6,832	2,955
Income before income taxes	38,229	24,426
Income tax provision	13,266	8,094
Net income	$24,963	$16,332
Share and per share information:		
Net income per share:		
Basic	$0.91	$0.79
Diluted	$0.88	$0.76
Weighted average shares outstanding:		
Basic	27,307	20,690
Diluted	28,330	21,515

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
ASSETS		
Current assets:		
Cash and cash equivalents	$5,245	$10,374
Accounts receivable, net of allowances	134,877	107,799
Inventories	44,922	41,300
Prepaid royalties	19,721	20,118
Prepaid expenses and other current assets	6,551	6,374
Investments	2,926	0
Deferred tax asset	666	2,005
Total current assets	214,908	187,970
Fixed assets, net	5,260	4,120
Prepaid royalties	1,303	1,510
Capitalized software development costs, net	9,613	2,227
Investments	28,487	0
Investment in affiliates	0	3,955
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	30,857
Other assets, net	1,565	1,073
Total Assets	$351,641	$231,712
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$47,972	$71,230
Accrued expenses and other current liabilities	19,357	19,157
Lines of credit	84,605	56,048
Current portion of capital lease obligation	89	65
Notes payable, net of discount	0	31
Total current liabilities	152,023	146,531
Loan payable, net of discount	12,268	58
Capital lease obligation, net of current portion	348	20
Total liabilities	164,639	146,609
Stockholders' equity:		
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231
Additional paid-in capital	157,738	67,345
Deferred compensation	(5)	(48)
Retained earnings	43,365	18,402
Accumulated other comprehensive loss	(14,408)	(827)
Total stockholders' equity	187,002	85,103
Total Liabilities and Stockholders' Equity	$351,641	$231,712

Please click on the following tab to review preliminary analytical procedures results.

Tab 4
Presentation of Analytical Procedures Results

A member of your audit team has provided the following analytical procedures results to you. The instructions appearing in the textbox on the workpaper explain what the member has documented, the results follow.

Results of Analytical Procedures Performed During Planning

Analytical procedures performed during planning may be helpful in identifying the risks of material misstatement due to fraud. However, because such analytical procedures generally use data aggregated at a high level, the results of those procedures only provide a broad initial indication about whether a material misstatement of the financial statements may exist. Accordingly, the results of these procedures are considered along with the other sources of information about the fraud risk assessment.

In planning the audit, we perform analytical procedures relating to revenue with the objective of identifying unusual or unexpected relationships involving revenue accounts or significant transactions that may be indicative of a material misstatement due to fraudulent financial reporting.

Presented below you will find (1) a calculation of the percent change in the account from the prior year, (2) a common size income statement and a common size balance sheet, (3) a comparison of actual results to the company's budget, and (4) ratio analysis.

Financial Statements – Prior Year Comparisons

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
Net Sales	$387,006	$305,932	26.50%
Cost of goods sold	247,796	215,122	15.19%
Gross Profit	139,210	90,810	53.30%
Operating Expenses:			
Selling and marketing	42,854	30,108	42.33%
General and administrative	36,409	25,236	44.27%
Research and development costs	5,668	5,263	7.70%
Depreciation and amortization	9,805	2,822	247.45%
Other, net	(587)	0	100.00%
Total operating expenses	94,149	63,429	48.43%
Income from operations	45,061	27,381	64.57%
Interest expense, net	6,069	2,910	108.56%
Equity in loss of affiliate	763	45	1595.56%
Total non-operating expenses	6,832	2,955	131.20%
Income before income taxes	38,229	24,426	56.51%
Income tax provision	13,266	8,094	63.90%
Net income	$24,963	$16,332	52.85%
Share and per share information:			
Net income per share:			
Basic	$0.91	$0.79	15.19%
Diluted	$0.88	$0.76	15.79%
Weighted average shares outstanding:			
Basic	27,307	20,690	31.98%
Diluted	28,330	21,515	31.68%

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
ASSETS			
Current assets:			
Cash and cash equivalents	$5,245	$10,374	-49.44%
Accounts receivable, net of allowances	134,877	107,799	25.12%
Inventories	44,922	41,300	8.77%
Prepaid royalties	19,721	20,118	-1.97%
Prepaid expenses and other current assets	6,551	6,374	2.78%
Investments	2,926	0	100.00%
Deferred tax asset	666	2,005	-66.78%
Total current assets	214,908	187,970	14.33%
Fixed assets, net	5,260	4,120	27.67%
Prepaid royalties	1,303	1,510	-13.71%
Capitalized software development costs, net	9,613	2,227	331.66%
Investments	28,487	0	100.00%
Investment in affiliates	0	3,955	-100.00%
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	30,857	193.30%
Other assets, net	1,565	1,073	45.85%
Total Assets	$351,641	$231,712	51.76%
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	$47,972	$71,230	-32.65%
Accrued expenses and other current liabilities	19,357	19,157	1.04%
Lines of credit	84,605	56,048	50.95%
Current portion of capital lease obligation	89	65	36.92%
Notes payable, net of discount	0	31	-100.00%
Total current liabilities	152,023	146,531	3.75%
Loan payable, net of discount	12,268	58	21051.72%
Capital lease obligation, net of current portion	348	20	1640.00%
Total liabilities	164,639	146,609	12.30%
Stockholders' equity:			
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231	35.06%
Additional paid-in capital	157,738	67,345	134.22%
Deferred compensation	(5)	(48)	-89.58%
Retained earnings	43,365	18,402	135.65%
Accumulated other comprehensive loss	(14,408)	(827)	1642.20%
Total stockholders' equity	187,002	85,103	119.74%
Total Liabilities and Stockholders' Equity	$351,641	$231,712	51.76%

Common-Size Financial Statements

MicroTech, Inc
Common Size Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008		2007	
	Unaudited	**% of Net Sales**	**Audited**	**% of Net Sales**
Net Sales	$387,006	100.00%	$305,932	100.00%
Cost of goods sold	247,796	64.03%	215,122	70.32%
Gross Profit	139,210	35.97%	90,810	29.68%
Operating Expenses:				
Selling and marketing	42,854	11.07%	30,108	9.84%
General and administrative	36,409	9.41%	25,236	8.25%
Research and development costs	5,668	1.46%	5,263	1.72%
Depreciation and amortization	9,805	2.53%	2,822	0.92%
Other, net	(587)	-0.15%	0	0.00%
Total operating expenses	94,149	24.33%	63,429	20.73%
Income from operations	45,061	11.64%	27,381	8.95%
Interest expense, net	6,069	1.57%	2,910	0.95%
Equity in loss of affiliate	763	0.20%	45	0.01%
Total non-operating expenses	6,832	1.77%	2,955	0.97%
Income before income taxes	38,229	9.88%	24,426	7.98%
Income tax provision	13,266	3.43%	8,094	2.65%
Net income	$24,963	6.45%	$16,332	5.34%

MicroTech, Inc
Common-Size Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	%	2007 Audited	%
ASSETS				
Current assets:				
Cash and cash equivalents	$5,245	1.49%	$10,374	4.48%
Accounts receivable, net of allowances	134,877	38.36%	107,799	46.52%
Inventories	44,922	12.77%	41,300	17.82%
Prepaid royalties	19,721	5.61%	20,118	8.68%
Prepaid expenses and other current assets	6,551	1.86%	6,374	2.75%
Investments	2,926	0.83%	0	0.00%
Deferred tax asset	666	0.19%	2,005	0.87%
Total current assets	214,908	61.12%	187,970	81.12%
Fixed assets, net	5,260	1.50%	4,120	1.78%
Prepaid royalties	1,303	0.37%	1,510	0.65%
Capitalized software development costs, net	9,613	2.73%	2,227	0.96%
Investments	28,487	8.10%	0	0.00%
Investment in affiliates	0	0.00%	3,955	1.71%
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	25.74%	30,857	13.32%
Other assets, net	1,565	0.45%	1,073	0.46%
Total Assets	$351,641	100.00%	$231,712	100.00%
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	$47,972	13.64%	$71,230	30.74%
Accrued expenses and other current liabilities	19,357	5.50%	19,157	8.27%
Lines of credit	84,605	24.06%	56,048	24.19%
Current portion of capital lease obligation	89	0.03%	65	0.03%
Notes payable, net of discount	0	0.00%	31	0.01%
Total current liabilities	152,023	43.23%	146,531	63.24%
Loan payable, net of discount	12,268	3.49%	58	0.03%
Capital lease obligation, net of current portion	348	0.10%	20	0.01%
Total liabilities	164,639	46.82%	146,609	63.27%
Stockholders' equity:				
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	0.09%	231	0.10%
Additional paid-in capital	157,738	44.86%	67,345	29.06%
Deferred compensation	(5)	0.00%	(48)	-0.02%
Retained earnings	43,365	12.33%	18,402	7.94%
Accumulated other comprehensive loss	(14,408)	-4.10%	(827)	-0.36%
Total stockholders' equity	187,002	53.18%	85,103	36.73%
Total Liabilities and Stockholders' Equity	$351,641	100.00%	$231,712	100.00%

Financial Statements – Actual vs. Budget

MicroTech, Inc
Unaudited Income Statement - Actual vs. Budget Analysis
For the year ended October 31, 2008
(in thousands)

	Actual	Budget	$ Variance	% Variance
Net Sales	$387,006	$376,000	11,006	2.93%
Cost of goods sold	247,796	240,500	7,296	3.03%
Gross Profit	139,210	135,500	3,710	2.74%
Operating Expenses:				
Selling and marketing	42,854	43,000	(146)	-0.34%
General and administrative	36,409	36,800	(391)	-1.06%
Research and development costs	5,668	5,600	68	1.21%
Depreciation and amortization	9,805	10,000	(195)	-1.95%
Other, net	(587)	(600)	13	-2.17%
Total operating expenses	94,149	94,800	(651)	-0.69%
Income from operations	45,061	40,700	4,361	10.71%
Interest expense, net	6,069	6,100	(31)	-0.51%
Equity in loss of affiliate	763	750	13	1.73%
Total non-operating expenses	6,832	6,850	(18)	-0.26%
Income before income taxes	38,229	33,850	4,379	12.94%
Income tax provision	13,266	12,800	466	3.64%
Net income	$24,963	$21,050	3,913	18.59%
Share and per share information:				
Net income per share:				
Basic	$0.91	$0.77	$0.14	18.18%
Diluted	$0.88	$0.74	$0.14	18.92%
Weighted average shares outstanding:				
Basic	27,307	27,307		
Diluted	28,330	28,330		

Ratio Analysis Results

		2008	2007
Liquidity:			
	Current	1.41	1.28
	Quick	0.92	0.81
Solvency:			
	Debt to Assets	0.47	0.63
	Long-term Debt to Equity	0.07	0.00
Activity:			
	Inventory Turnover	5.52	5.21
	Age of Inventory (days)	65.26	69.11
	Accounts Receivable Turnover	2.87	2.84
	Age of Accounts Receivable (days)	125.47	126.85
Profitability:			
	Gross Margin	35.97%	29.68%
	Profit Margin on Sales	6.45%	5.34%
	Return on Total Assets	8.82%	8.30%
	Operating Profit Margin	11.64%	8.95%
	Pretax Margin	9.88%	7.98%
Sales:			
	Sales to Accounts Receivable	2.87	2.84
	Sales to Current Assets	1.80	1.63
	Sales to Accounts Payable	8.07	4.29
	Sales to Net Income	15.50	18.73
	Sales to Total Assets	1.10	1.32

Equations:
Current ratio: current assets / current liabilities
Quick ratio: (cash and cash equivalents + net accounts receivable) / current liabilities
Debt to assets: total debt / total assets
Long-term debt to equity: long-term debt / stockholders' equity
Inventory turnover: cost of sales / inventory
Age of inventory: 360 days / inventory turnover
Accounts receivable turnover: sales / accounts receivable
Age of accounts receivable: 360 days / accounts receivable turnover
Gross margin: total gross margin (sales – cost of goods sold) / sales
Profit margin on sales: net income / total revenues
Return on total assets: (net income + interest expense) / total assets
Operating profit margin: income from operations / sales
Pretax margin: net profit before taxes / sales

Sales to accounts receivable: sales / accounts receivable
Sales to current assets: sales / current assets
Sales to accounts payable: sales / accounts payable
Sales to net income: sales / net income
Sales to total assets: sales / total assets

Please click on the following tab to review the preliminary fraud risk assessment.

Tab 5
Presentation of Fraud Risk Assessment Results

A member of your audit team has provided you with the following excerpt from the Fraud Risk Assessment workpaper explaining selected risk assessment results. The instructions appearing in the textbox on the workpaper explain what the member has documented. The results of the audit team member's work appear in the table. Not all risk assessment conclusions include a remark.

Identifying Potential Risks of Material Misstatement Due To Fraud
Description and Characteristics of Fraud

Two types of misstatements are relevant to our consideration of fraud: 1) misstatements arising from fraudulent financial reporting; and 2) misstatements arising from misappropriation of assets.

Three conditions generally are present when fraud occurs: (1) management or other employees have an incentive or are under pressure to commit fraud; (2) circumstances exist —for example, the absence of controls, ineffective controls or the ability of management to override controls— that provide an opportunity for a fraud to be perpetrated; and (3) those involved are able to rationalize a fraudulent act as being consistent with their personal code of ethics. Some individuals possess an attitude, character, or set of ethical values that allow them to knowingly and intentionally commit a dishonest act.

We expect that one or more risks of material misstatement due to fraud will be identified for most engagements.

Fraud Risk Factors Associated With Fraudulent Financial Reporting

Identifying one or more fraud risk factors does not necessarily mean that internal control at the entity level is ineffective.

A. Incentives / Pressure to commit fraud

	Risk	Yes / No / N/A	Remarks
1.	Financial stability or profitability is threatened by economic, industry, or operating conditions, such as (or as indicated by):	Results are mixed	Please see results for sub-factors below.
	a. High degree of competition or market saturation.	Yes	While MicroTech faces a high degree of competition, the market for new games (i.e. video games) is growing.
	b. High vulnerability to rapid changes, such as changes in technology, or product obsolescence.	Yes	
	c. Significant declines in customer demand and increasing business failures in either the industry or overall	No	The market for video games has expanded to include customers who do not fit the traditional gaming demographic; the new

	economy.		market includes both females and an older audience.
	d. New accounting, statutory, or regulatory requirements that could impair the institution's profitability, financial stability or regulatory capital ratios.	No	
2.	Information available indicates that management or the board of directors' personal financial situation is threatened by the entity's financial performance arising from the following:	Results are mixed	Please see results for sub-factors (a) and (b) below.
	a. Significant portions of their compensation (e.g., bonuses, stock options, and earn out arrangements) being contingent upon achieving aggressive targets for stock price, operation results, financial position, or cash flow.	Yes	The Chief Operating Officer and Chief Financial Officer may earn a quarterly bonus contingent on MicroTech increasing its net income in each period.
	b. The institution is experiencing a poor or deteriorating financial condition and management has personally guaranteed the debts of the institution.	No	

B. Opportunity to commit fraud

	Risk	Yes / No / N/A	Remarks
3.	The nature of the institution's industry or operations provides opportunities to engage in fraudulent financial reporting that can arise from the following:	Results are mixed	
	a. Assets, liabilities, revenues or expenses based on significant estimates that involve subjective judgments or uncertainties that are difficult to corroborate or that could significantly change in the near term in a way that might be financially disruptive to the institution.	No	MicroTech does have to estimate the amount of return reserve to book for each sale; however, the company does so using a method that includes considering historical return amounts and trends.
	b. Significant accounts or transactions with little or no supporting documentation or "audit trail"	No	
	c. The institution engages in material, nonrecurring transactions that occur	Yes	MicroTech fulfilled the largest sale of the year on the last day of the fiscal year. The

	near the end of the reporting period, comprise a substantial portion of earnings, or appear to be attempts to recognize large short-term gains.		sale was to a repeat customer.
4.	There is ineffective monitoring of management as a result of the following:	No	
	a. Domination of management by a single person or small group (in a nonowner managed business) without compensating controls.	No	
	b. Ineffective board of directors or audit committee oversight over the financial reporting process and internal control.	No	
	c. The board, audit committee, or management lacks sufficient expertise and industry experience, especially in new lines of business the institution is entering.	No	
5.	There is a complex or unstable organizational structure, as evidenced by the following:	No	
	a. High turnover of senior management, counsel, or board members.	No	Personnel have remained relatively constant.
	b. Significant operations conducted in remote locations that are difficult to monitor effectively.	No	
6.	Internal control components are deficient as a result of the following:	No	
	a. Inadequate monitoring of controls, including automated controls and controls over the financial reporting process.	No	
	b. Deficiencies in segregation of duties or independent checks. For example:	No	
	1. Vacant staff positions remain unfilled for extended periods	No	
	2. Failure to establish adequate segregation of duties between approval transactions and disbursement of funds	No	
	c. Deficiencies in accounting, financial reporting, or management reporting processes.	No	
	d. High turnover rates or employment of ineffective accounting, internal audit,	No	

	or information technology staff.		

C. Attitudes / Rationalizations

	Risk	Yes / No / N/A	Remarks
7.	Management has ineffective communication, implementation, support, or enforcement of the institution's values or ethical standards by management or the communication of inappropriate values or ethical standards.	No	
8.	Known history of violations of laws and regulations, or claims against the entity, its senior management, or board members alleging fraud or violations of laws and regulations.	No	There have been no allegations of fraud against the entity, its senior management, or board members.
9.	Management failing to correct known significant deficiencies or material weaknesses on a timely basis.	No	
10.	Recurring attempts by management to justify marginal or inappropriate accounting on the basis of materiality.	No	
11.	The following accounting and financial reporting considerations:	No	
	a. Inability to prepare accurate and timely financial reports, including interim reports.	No	Financial reports, including interim reports, have been prepared in a timely manner.
	b. Lack of timely and appropriate documentation for transactions	No	Transactions have been recorded in a timely manner and MicroTech has retained appropriate supporting documentation for transactions.
12.	The relationship between management and the engagement team is strained, as exhibited by the following:	No	
	a. Frequent disputes with the engagement team or predecessor auditor on accounting, auditing, or reporting matters.	No	We have conducted audits of MicroTech for the past several years and have no documented disputes with the client.
	b. Unreasonable demands on the engagement team, such as unreasonable time constraints regarding the completion of the audit or the issuance of the auditor's report.	No	
	c. Formal or informal restrictions on the	No	The audit team has not been restricted in

	engagement team that inappropriately limit access to people or information or the ability to communicate effectively with the board of directors or audit committee.		their access to personnel or information.
	d. Inability or unwillingness by management to provide requested information in a timely manner to the engagement team.	No	Management has been responsive to requests made by the audit team.

Please click on the following tab to complete Evaluation Task 1.

Tab 6
Evaluation Task 1
Based on your review of the materials, what is your judgment of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity’s business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity’s survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 7
Presentation of Client Inquiry Dialogue with CFO & Divisional Controller

Transcript of discussion with:

Name(s):	**Title(s):**
Tom Johnson	Chief Financial Officer

The audit team has spoken several times with Tom Johnson, the Chief Financial Officer. He has direct responsibility for the financial statements. He has provided information from which the audit team has gained an understanding of the company and the company's plans for the future. He has made himself available when questions have arisen.

Please read the dialogue reported below of the client inquiry with Tom Johnson.

Dialogue
"You mentioned you wanted to talk about some things that happened at MicroTech during the past year. We have worked hard this year. We are in a pretty competitive market, but we have been developing some great new games. As I mentioned before, we definitely face competition in the marketplace. To address this, we are continuously developing new video games. This past year we released several big hits and we have plans to follow these up with a strong line-up of games next year also. The nice thing is that our target market is broadening. Interactive software games have become an increasingly mainstream entertainment choice for a maturing, technologically sophisticated audience. The average age of a gamer is now about 28 years old and our target market now includes women also. Further, we expect that releasing some budget software games will help us grow our business. We see the opportunity to provide inexpensive entertainment and we are taking it. That is how we grow our sales. Overall, we had a good year this year. We exceeded our sales for the prior year. Our increase in net sales reflects the expansion of our global publishing and distribution businesses. Our cost of sales increased because we expanded our scope of operations and because of our revenue growth. Speaking of sales...we booked our largest sale ever this year. On October 31, we shipped 230,000 games to one of our best customers. Included in that sale were some of our new games that we think are going to be received well by the gamers in the market. Hopefully we can keep our momentum going. I and several of our other execs have some incentive to keep the momentum up. As you probably know, my quarterly bonus is contingent on increasing net income each quarter. Several of our executives have such employment agreements. It is fairly common, and is how we tie our incentives to performance. We want this company to do well, so we have tried to structure our human resources policies to align with our growth strategy. We have supported our growth strategy through the acquisition of several companies. We amortized goodwill associated with the acquisition of these companies, so our depreciation and amortization expense increased this year. So that is a bit about the company. I know that we will continue to grow our sales, develop

new products and remain a leader in the market. I am confident that we can keep growing this company. If you have anymore questions, please just ask."

Transcript of discussion with:

Name(s):	Title(s):
Larry Smith	Divisional Controller

Larry Smith is the operating division's controller for MicroTech. He has a direct role in preparing the financial statements. The audit team has decided that you will speak with Larry because, as the divisional controller, he has a good understanding of some of the operations of the business.

Please read the dialogue reported below of the client inquiry with Larry Smith.

Dialogue

"Tom said that you might want to speak with me. Just to give you a picture of my role in the company, my duties include preparing the annual business plan and departmental budgets, maintaining and updating the inventory and costing systems, preparing weekly and monthly financial reports and communicating the results to department managers and support departments. I work closely with sales and marketing on overall pricing/financial strategies. I guess you could say I am a link between our upper management and our operations personnel.

As the controller of the operating division, I can answer your questions about everything from our warehouse procedures to our budgeting processes. I did hear that you wanted to talk with me about our marketplace and some of our sales.

We typically have a pretty good idea which games will be our real blockbusters, but sometimes the market for a specific game can be somewhat difficult to predict. In this industry, because of the uncertainty factor of which games will be a real hit with our audiences, we sometimes need to offer our customers the right to return what doesn't sell. It is a fairly common practice for video game distributors. When we sell the product, we book the sale net of an estimated return amount and book the reserve at the time of the sale. We have the reserve calculation down to a science now. It is based on historic return rates. We don't offer this with every sale, but we have to on some of our new game releases.

I heard that you wanted to know about some of our larger sales completed this year. Our biggest sale of the year was to D.C. Videos, our sales team managed to arrange that one just before year end. Actually, the shipment containing 230,000 video games went out on October 31. We ship to D.C. and their affiliates on a regular basis, but that sale was a great one to land. We had been working on that sale for a while. The sale shipped late in the year because things got hung up a bit on the customer's side. So we are happy to have that one wrapped up.

We are really focusing on setting ourselves up for a good year next year also. We have been working hard to generate good buzz around some of our new games. Selling and marketing expenses increased because of our increased marketing costs associated with establishing publishing programs and brand names. We want the games to be well known and our company to be a recognizable brand.

Let me know if you have any more questions as you go through the audit. I'd be happy to

help."

Please click on the following tab to complete Evaluation Task 2.

Tab 8
Evaluation Task 2
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's CFO and Divisional Controller.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 9
Presentation of Client Inquiry Dialogue with Other Client Personnel

Transcript of discussion with:

Name(s):	**Title(s):**
Phil Jones	Warehouse Manager

Phil Jones is the warehouse manager for MicroTech. He does not have a direct role in preparing the financial statements. Phil has extensive experience in warehouse operations and has been the warehouse manager for MicroTech for over 12 years. The audit team has decided that you will speak with Phil because, as the warehouse manager, he has a good understanding of the operations of the business.

Please read the dialogue reported below of the client inquiry with Phil Jones.

Dialogue
"You mentioned that you wanted to talk with me about our shipping processes. Well, let me give you an overview of how we handle things down here in the warehouse. Typically, we receive the sales order on one of our terminals in the warehouse. Our guys will put all of the games that are going to be shipped together in a pile separate from the other inventory. We have these handheld scanners so we can scan the bar code on each game that we are putting in the pile so we know which ones are going out. It updates our inventory system for us too. These handhelds have really helped us cut back on keying errors since the workers don't have to manually type the barcodes in anymore. Anyway, once the games that are going to be shipped have been scanned into the system, we then go ahead and box them up and get them ready for shipment. We fill out a shipping document that includes what titles we are sending, how many, and where they are going. Our shipments vary in size by customer. Some of our customers only order a few titles at a time. Others send in some pretty big orders. Tom said that you may want to know about some of the sales orders we have fulfilled. We shipped out three pretty large orders on October 31. That was a hectic day, but we made it happen. One of the shipments contained 230,000 video games. That was our largest shipment this year. The shipment went out to D.C. Videos. We ship to D.C. and their affiliates on a regular basis. Actually, we also receive games from one of their affiliates. About a month after we sent out that large shipment, we received a shipment containing the same number of games as we had shipped out earlier. Typically we have a purchase order number waiting to be matched up with the shipment, but on this one, we had to call the purchasing manager and he said he was in the process of creating the PO. He said that Tom, our CFO, and Larry, our divisional controller, called and said to go ahead and create a PO and send it down to us as soon as possible. From what I heard, it was some deal Tom had worked out directly with the vendor. Oh, one more thing, typically we record the titles and quantities of each game received on the receiving report, but on this one Tom instructed us to record the receipt as "assorted product".

I only bring it up because you mentioned that you wanted to know about any exceptions to our receiving process that may have taken place this year. That is really the only one that I can think of, everything else went pretty smoothly.

Well, that is pretty much what goes on around here. I've got a good group of workers down here and we have been doing really well at keeping up with the orders. Let me know if you want a tour of the warehouse sometime. We are pretty pleased with how we run this place."

Please click on the following tab to complete Evaluation Task 3.

Tab 10
Evaluation Task 3
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's Warehouse Manager and what audit procedure(s) you would like to complete next.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Phil Jones, Warehouse Manager (WHM).

Please rate the level of experience of Phil Jones, warehouse manager.

Low Level of Experience					Neutral					High Level of Experience
0	1	2	3	4	5	6	7	8	9	10

The information provided by *Phil Jones*, warehouse manager, influenced my fraud risk assessment judgment.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe that *Phil Jones*, WHM, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Phil Jones*, WHM is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Phil Jones*, WHM, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Please recall that you reviewed conversations with CFO Tom Johnson and Divisional Controller Larry Smith earlier. Please provide an additional assessment of Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

In light of the evidence gathered, do you have any comments or concerns that you want to raise with members of the engagement team?

[TEXT BOX]

Save and Continue

Tab 11
General Case Questions

Please complete the following questions.

Were there any inconsistencies between company personnel directly involved with the financial reporting process (e.g. the CFO and Divisional Controller) and operating personnel (e.g. the Warehouse Manager)?

☐ Yes ☐ No

Were you able to determine the actual company on which the case materials were based?

☐ Yes ☐ No

If you think so, please identify the company.

[TEXT BOX]

Demographic Information

Please complete the following questions.

What is your gender?

☐ Female ☐ Male

Please provide the name of your current employer.

[TEXT BOX]

Please provide your current job title (e.g. senior, manager, etc.).

[TEXT BOX]

How long have you worked as an auditor?

[YEARS BOX] [MONTHS BOX]

Have you ever worked on an audit where management fraud was detected?

☐ Yes ☐ No

If you answered yes to the question above, was an adverse opinion actually issued on one or more of these engagements?

☐ Yes ☐ No

Please enter your email address if you would like to be entered into the prize drawing (your email will not be used for any other purpose):

[TEXT BOX]

If you are willing to be contacted about the study after completing the case, please provide your contact information below.

[TEXT BOX]

[Submit!]

APPENDIX B

Case 2 – No Fraud Condition/Warehouse Manager/Higher Experience

Audit Judgment Study

Tab 1
Introduction

This study concerns a judgment and decision-making task in an auditing context. You will be asked to assume the role of auditor evaluating a hypothetical client.

There are three parts to the study. First, you will read a description of a current audit client, view the results of some analytical procedures and the results of the fraud risk assessment. Next, you will read the dialogue from the client inquiry with the Chief Financial Officer and the Divisional Controller followed by the dialogue from the client inquiry with other client personnel. There are three evaluation tasks to record your judgments. There are no right or wrong answers in this study; rather, you will be asked to come up with your best judgment given the information provided.

Information about the company and each evaluation task appear on separate tabs throughout the exercise. Please read through and complete the tabs in order (proceeding from top to bottom). Once you have completed and saved an evaluation task, you will be able to access that tab again, but you will not be able to edit your responses. The tabs containing company information will be available for review throughout the task.

I am a PhD student at Virginia Tech and this research case is part of my program of study for my doctorate. As a former auditor, I realize that your time is very valuable and I appreciate your willingness to participate.

To encourage participation, I will be selecting three individuals from the pool of participants to receive a $100 Visa gift card. At the conclusion of the study, winners of the drawing will be contacted via e-mail during the following week. You may opt out of the drawing and still participate in the survey.

Participation in this study will take approximately 30 to 40 minutes. If you have any questions or concerns, please contact me via email (meabell@vt.edu). Thank you for your assistance!

Meghann Abell Cefaratti

Please click on the following tab to begin the case by reviewing the company's background information.

Tab 2
The Audit

You are part of the audit team assigned to the October 31, 2008 year-end audit for MicroTech. The company is subject to the normal reporting requirements of a publicly-owned company. The accounting functions are centralized and all transactions are processed in the main office. During the past three years, the company made no significant accounting policy changes.

Your firm has audited MicroTech for several years. Each of those years, the company has received an unqualified audit opinion. Relations between the audit team and management have been good in the past.

Background Information – MicroTech, Inc.

MicroTech, Inc. is a leading global developer, publisher and distributor of interactive software games. Its software operates on PCs and video game consoles manufactured by Sony, Nintendo and Sega. They develop software internally and engage third parties to develop software on their behalf. They publish software under multiple well-known labels.

They sell internally developed software as well as third-party software to retail outlets in the United States. For the year ending October 31, 2008 the sale of third-party products accounted for approximately 47.8% of company revenues, with sales to their five largest customers accounting for approximately 20.0% of revenues. No single customer accounted for more than 10% of revenues during this period. Their customers include WalMart, Toys R Us, Electronics Boutique, Babbage's, Best Buy and Ames Department Stores, as well as leading national and regional drug store, supermarket and discount store chains and specialty retailers. They also have publishing and distribution operations in several foreign countries.

A large and growing installed base of advanced PCs and video game consoles combined with expanding gamer demographics have driven demand for interactive software games in recent years. Increased demand for interactive software is expected as a result of the emergence of next-generation platforms which are designed to exploit the convergence of computing, digital technologies and the Internet.

They release games with potential for broad consumer appeal. The company released more than sixty games during the year ending October 31, 2008. Their five best-selling games, in the aggregate, accounted for approximately 12.0% of their revenues. They plan to deliver high-profile game content for both PC and evolving console markets, particularly for next-generation platforms with potential for significant market penetration. Sales of the games are seasonal, with peak shipments typically occurring in the fourth calendar quarter (the fourth and first fiscal quarters) as a result of increased demand for the games during the holiday season.

The company's marketing and promotional efforts are intended to maximize exposure and broaden distribution of their games, promote brand name recognition, assist retailers and properly position, package and merchandise their games. They market the games by implementing aggressive public relations campaigns, primarily using print and on-line advertising and to a lesser extent television and radio spots. They also employ various other

marketing methods designed to promote consumer awareness, including in-store promotions and point-of-purchase displays, direct mail, cooperative advertising, attendance at trade shows, as well as the use of distinctive packaging.

The principal sources of revenues are derived from publishing and distribution operations. Publishing revenues are derived from the sale of internally developed software or software licensed from third parties. Distribution revenues are derived from the sale of third-party software and hardware. They recognize revenue from software sales when product ownership and risk of loss pass to their customers.

In the market for video games, the demand for specific games can differ from expectations. When demand for specific games falls below expectations, the company does sometimes accept returns. At the time of the original sale, a reserve for future returns is established and the company recognizes revenues net of returns. The reserve amount is based on return policies and historical return rates. If future returns significantly exceed return reserves, operating results would be adversely affected.

Please click on the following tab to review the company's 2008 unaudited financial statements and 2007 audited financial statements.

Tab 3
Financial Information Provided by MicroTech

The income statement and balance sheet for the current year (2008) and the prior year (2007) are provided below.

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
Net Sales	$371,639	$305,932
Cost of goods sold	239,094	215,122
Gross Profit	132,545	90,810
Operating Expenses:		
Selling and marketing	42,854	30,108
General and administrative	36,409	25,236
Research and development costs	5,668	5,263
Depreciation and amortization	9,805	2,822
Other, net	(587)	0
Total operating expenses	94,149	63,429
Income from operations	38,396	27,381
Interest expense, net	6,069	2,910
Equity in loss of affiliate	763	45
Total non-operating expenses	6,832	2,955
Income before income taxes	31,564	24,426
Income tax provision	10,953	8,094
Net income	$20,611	$16,332
Share and per share information:		
Net income per share:		
Basic	$0.75	$0.79
Diluted	$0.73	$0.76
Weighted average shares outstanding:		
Basic	27,307	20,690
Diluted	28,330	21,515

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
ASSETS		
Current assets:		
Cash and cash equivalents	$5,245	$10,374
Accounts receivable, net of allowances	119,510	107,799
Inventories	53,624	41,300
Prepaid royalties	19,721	20,118
Prepaid expenses and other current assets	6,551	6,374
Investments	2,926	0
Deferred tax asset	666	2,005
Total current assets	208,243	187,970
Fixed assets, net	5,260	4,120
Prepaid royalties	1,303	1,510
Capitalized software development costs, net	9,613	2,227
Investments	28,487	0
Investment in affiliates	0	3,955
Intangibles, net of accumulated amortization of $9,798 and $3,251,	90,505	30,857
Other assets, net	1,565	1,073
Total Assets	$344,976	$231,712
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$47,972	$71,230
Accrued expenses and other current liabilities	17,044	19,157
Lines of credit	84,605	56,048
Current portion of capital lease obligation	89	65
Notes payable, net of discount	0	31
Total current liabilities	149,710	146,531
Loan payable, net of discount	12,268	58
Capital lease obligation, net of current portion	348	20
Total liabilities	162,326	146,609
Stockholders' equity:		
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231
Additional paid-in capital	157,738	67,345
Deferred compensation	(5)	(48)
Retained earnings	39,013	18,402
Accumulated other comprehensive loss	(14,408)	(827)
Total stockholders' equity	182,650	85,103
Total Liabilities and Stockholders' Equity	$344,976	$231,712

Please click on the following tab to review preliminary analytical procedures results.

Tab 4
Presentation of Analytical Procedures Results

A member of your audit team has provided the following analytical procedures results to you. The instructions appearing in the textbox on the workpaper explain what the member has documented, the results follow.

Results of Analytical Procedures Performed During Planning

Analytical procedures performed during planning may be helpful in identifying the risks of material misstatement due to fraud. However, because such analytical procedures generally use data aggregated at a high level, the results of those procedures only provide a broad initial indication about whether a material misstatement of the financial statements may exist. Accordingly, the results of these procedures are considered along with the other sources of information about the fraud risk assessment.

In planning the audit, we perform analytical procedures relating to revenue with the objective of identifying unusual or unexpected relationships involving revenue accounts or significant transactions that may be indicative of a material misstatement due to fraudulent financial reporting.

Presented below you will find (1) a calculation of the percent change in the account from the prior year, (2) a common size income statement and a common size balance sheet, (3) a comparison of actual results to the company’s budget, and (4) ratio analysis.

Financial Statements – Prior Year Comparisons

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
Net Sales	$371,639	$305,932	21.48%
Cost of goods sold	239,094	215,122	11.14%
Gross Profit	132,545	90,810	45.96%
Operating Expenses:			
Selling and marketing	42,854	30,108	42.33%
General and administrative	36,409	25,236	44.27%
Research and development costs	5,668	5,263	7.70%
Depreciation and amortization	9,805	2,822	247.45%
Other, net	(587)	0	100.00%
Total operating expenses	94,149	63,429	48.43%
Income from operations	38,396	27,381	40.23%
Interest expense, net	6,069	2,910	108.56%
Equity in loss of affiliate	763	45	1595.56%
Total non-operating expenses	6,832	2,955	131.20%
Income before income taxes	31,564	24,426	29.22%
Income tax provision	10,953	8,094	35.32%
Net income	$20,611	$16,332	26.20%
Share and per share information:			
Net income per share:			
Basic	$0.75	$0.79	-5.06%
Diluted	$0.73	$0.76	-3.95%
Weighted average shares outstanding:			
Basic	27,307	20,690	31.98%
Diluted	28,330	21,515	31.68%

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
ASSETS			
Current assets:			
Cash and cash equivalents	$5,245	$10,374	-49.44%
Accounts receivable, net of allowances	119,510	107,799	10.86%
Inventories	53,624	41,300	29.84%
Prepaid royalties	19,721	20,118	-1.97%
Prepaid expenses and other current assets	6,551	6,374	2.78%
Investments	2,926	0	
Deferred tax asset	666	2,005	-66.78%
Total current assets	208,243	187,970	10.79%
Fixed assets, net	5,260	4,120	27.67%
Prepaid royalties	1,303	1,510	-13.71%
Capitalized software development costs, net	9,613	2,227	331.66%
Investments	28,487	0	100.00%
Investment in affiliates	0	3,955	-100.00%
Intangibles, net of accumulated amortization of $9,798 and $3,251,	90,505	30,857	193.30%
Other assets, net	1,565	1,073	45.85%
Total Assets	$344,976	$231,712	48.88%
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	$47,972	$71,230	-32.65%
Accrued expenses and other current liabilities	17,044	19,157	-11.03%
Lines of credit	84,605	56,048	50.95%
Current portion of capital lease obligation	89	65	36.92%
Notes payable, net of discount	0	31	-100.00%
Total current liabilities	149,710	146,531	2.17%
Loan payable, net of discount	12,268	58	21051.72%
Capital lease obligation, net of current portion	348	20	1640.00%
Total liabilities	162,326	146,609	10.72%
Stockholders' equity:			
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231	35.06%
Additional paid-in capital	157,738	67,345	134.22%
Deferred compensation	(5)	(48)	-89.58%
Retained earnings	39,013	18,402	112.00%
Accumulated other comprehensive loss	(14,408)	(827)	1642.20%
Total stockholders' equity	182,650	85,103	114.62%
Total Liabilities and Stockholders' Equity	$344,976	$231,712	48.88%

Common-Size Financial Statements

MicroTech, Inc
Common Size Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008		2007	
	Unaudited	% of Net Sales	Audited	% of Net Sales
Net Sales	$371,639	100.00%	$305,932	100.00%
Cost of goods sold	239,094	64.34%	215,122	70.32%
Gross Profit	132,545	35.66%	90,810	29.68%
Operating Expenses:				
Selling and marketing	42,854	11.53%	30,108	9.84%
General and administrative	36,409	9.80%	25,236	8.25%
Research and development costs	5,668	1.53%	5,263	1.72%
Depreciation and amortization	9,805	2.64%	2,822	0.92%
Other, net	(587)	-0.16%	0	0.00%
Total operating expenses	94,149	25.33%	63,429	20.73%
Income from operations	38,396	10.33%	27,381	8.95%
Interest expense, net	6,069	1.63%	2,910	0.95%
Equity in loss of affiliate	763	0.21%	45	0.01%
Total non-operating expenses	6,832	1.84%	2,955	0.97%
Income before income taxes	31,564	8.49%	24,426	7.98%
Income tax provision	10,953	2.95%	8,094	2.65%
Net income	$20,611	5.55%	$16,332	5.34%

MicroTech, Inc
Common-Size Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	%	2007 Audited	%
ASSETS				
Current assets:				
Cash and cash equivalents	$5,245	1.52%	$10,374	4.48%
Accounts receivable, net of allowances	119,510	34.64%	107,799	46.52%
Inventories	53,624	15.54%	41,300	17.82%
Prepaid royalties	19,721	5.72%	20,118	8.68%
Prepaid expenses and other current assets	6,551	1.90%	6,374	2.75%
Investments	2,926	0.85%	0	0.00%
Deferred tax asset	666	0.19%	2,005	0.87%
Total current assets	208,243	60.36%	187,970	81.12%
Fixed assets, net	5,260	1.52%	4,120	1.78%
Prepaid royalties	1,303	0.38%	1,510	0.65%
Capitalized software development costs, net	9,613	2.79%	2,227	0.96%
Investments	28,487	8.26%	0	0.00%
Investment in affiliates	0	0.00%	3,955	1.71%
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	26.24%	30,857	13.32%
Other assets, net	1,565	0.45%	1,073	0.46%
Total Assets	$344,976	100.00%	$231,712	100.00%
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	$47,972	13.91%	$71,230	30.74%
Accrued expenses and other current liabilities	17,044	4.94%	19,157	8.27%
Lines of credit	84,605	24.52%	56,048	24.19%
Current portion of capital lease obligation	89	0.03%	65	0.03%
Notes payable, net of discount	0	0.00%	31	0.01%
Total current liabilities	149,710	43.40%	146,531	63.24%
Loan payable, net of discount	12,268	3.56%	58	0.03%
Capital lease obligation, net of current portion	348	0.10%	20	0.01%
Total liabilities	162,326	47.05%	146,609	63.27%
Stockholders' equity:				
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	0.09%	231	0.10%
Additional paid-in capital	157,738	45.72%	67,345	29.06%
Deferred compensation	(5)	0.00%	(48)	-0.02%
Retained earnings	39,013	11.31%	18,402	7.94%
Accumulated other comprehensive loss	(14,408)	-4.18%	(827)	-0.36%
Total stockholders' equity	182,650	52.95%	85,103	36.73%
Total Liabilities and Stockholders' Equity	$344,976	100.00%	$231,712	100.00%

Financial Statements – Actual vs. Budget

MicroTech, Inc
Unaudited Income Statement - Actual vs. Budget Analysis
For the year ended October 31, 2008
(in thousands)

	Actual	Budget	$ Variance	% Variance
Net Sales	$371,639	$376,000	(4,361)	-1.16%
Cost of goods sold	239,094	240,500	(1,406)	-0.58%
Gross Profit	132,545	135,500	(2,955)	-2.18%
Operating Expenses:				
Selling and marketing	42,854	43,000	(146)	-0.34%
General and administrative	36,409	36,800	(391)	-1.06%
Research and development costs	5,668	5,600	68	1.21%
Depreciation and amortization	9,805	10,000	(195)	-1.95%
Other, net	(587)	(600)	13	-2.17%
Total operating expenses	94,149	94,800	(651)	-0.69%
Income from operations	38,396	40,700	(2,304)	-5.66%
Interest expense, net	6,069	6,100	(31)	-0.51%
Equity in loss of affiliate	763	750	13	1.73%
Total non-operating expenses	6,832	6,850	(18)	-0.26%
Income before income taxes	31,564	33,850	(2,286)	-6.75%
Income tax provision	10,953	12,800	(1,847)	-14.43%
Net income	$20,611	$21,050	(439)	-2.08%
Share and per share information:				
Net income per share:				
Basic	$0.75	$0.77	($0.02)	-2.60%
Diluted	$0.73	$0.74	($0.02)	-2.70%
Weighted average shares outstanding:				
Basic	27,307	27,307		
Diluted	28,330	28,330		

Ratio Analysis Results

		2008	**2007**
Liquidity:			
	Current	1.39	1.28
	Quick	0.83	0.81
Solvency:			
	Debt to Assets	0.47	0.63
	Long-term Debt to Equity	0.07	0.00
Activity:			
	Inventory Turnover	4.46	5.21
	Age of Inventory (days)	80.74	69.11
	Accounts Receivable Turnover	3.11	2.84
	Age of Accounts Receivable (days)	115.77	126.85
Profitability:			
	Gross Margin	35.66%	29.68%
	Profit Margin on Sales	5.55%	5.34%
	Return on Total Assets	7.73%	8.30%
	Operating Profit Margin	10.33%	8.95%
	Pretax Margin	8.49%	7.98%
Sales:			
	Sales to Accounts Receivable	3.11	2.84
	Sales to Current Assets	1.78	1.63
	Sales to Accounts Payable	7.75	4.29
	Sales to Net Income	18.03	18.73
	Sales to Total Assets	1.08	1.32

Equations:
Current ratio: current assets / current liabilities
Quick ratio: (cash and cash equivalents + net accounts receivable) / current liabilities
Debt to assets: total debt / total assets
Long-term debt to equity: long-term debt / stockholders' equity
Inventory turnover: cost of sales / inventory
Age of inventory: 360 days / inventory turnover
Accounts receivable turnover: sales / accounts receivable
Age of accounts receivable: 360 days / accounts receivable turnover
Gross margin: total gross margin (sales – cost of goods sold) / sales
Profit margin on sales: net income / total revenues
Return on total assets: (net income + interest expense) / total assets
Operating profit margin: income from operations / sales
Pretax margin: net profit before taxes / sales

Sales to accounts receivable: sales / accounts receivable
Sales to current assets: sales / current assets
Sales to accounts payable: sales / accounts payable
Sales to net income: sales / net income
Sales to total assets: sales / total assets

Please click on the following tab to review the preliminary fraud risk assessment.

Tab 5
Presentation of Fraud Risk Assessment Results

A member of your audit team has provided you with the following excerpt from the Fraud Risk Assessment workpaper explaining selected risk assessment results. The instructions appearing in the textbox on the workpaper explain what the member has documented. The results of the audit team member's work appear in the table. Not all risk assessment conclusions include a remark.

Identifying Potential Risks of Material Misstatement Due To Fraud
Description and Characteristics of Fraud

Two types of misstatements are relevant to our consideration of fraud: 1) misstatements arising from fraudulent financial reporting; and 2) misstatements arising from misappropriation of assets.

Three conditions generally are present when fraud occurs: (1) management or other employees have an incentive or are under pressure to commit fraud; (2) circumstances exist —for example, the absence of controls, ineffective controls or the ability of management to override controls— that provide an opportunity for a fraud to be perpetrated; and (3) those involved are able to rationalize a fraudulent act as being consistent with their personal code of ethics. Some individuals possess an attitude, character, or set of ethical values that allow them to knowingly and intentionally commit a dishonest act.

We expect that one or more risks of material misstatement due to fraud will be identified for most engagements.

Fraud Risk Factors Associated With Fraudulent Financial Reporting

Identifying one or more fraud risk factors does not necessarily mean that internal control at the entity level is ineffective.

A. Incentives / Pressure to commit fraud

	Risk	Yes / No / N/A	Remarks
1.	Financial stability or profitability is threatened by economic, industry, or operating conditions, such as (or as indicated by):	Results are mixed	Please see results for sub-factors below.
	a. High degree of competition or market saturation.	Yes	While MicroTech faces a high degree of competition, the market for new games (i.e. video games) is growing.
	b. High vulnerability to rapid changes, such as changes in technology, or product obsolescence.	Yes	
	c. Significant declines in customer demand and increasing business	No	The market for video games has expanded to include customers who do not fit the

	failures in either the industry or overall economy.		traditional gaming demographic; the new market includes both females and an older audience.
	d. New accounting, statutory, or regulatory requirements that could impair the institution's profitability, financial stability or regulatory capital ratios.	No	
2.	Information available indicates that management or the board of directors' personal financial situation is threatened by the entity's financial performance arising from the following:	Results are mixed	Please see results for sub-factors (a) and (b) below.
	a. Significant portions of their compensation (e.g., bonuses, stock options, and earn out arrangements) being contingent upon achieving aggressive targets for stock price, operation results, financial position, or cash flow.	Yes	The Chief Operating Officer and Chief Financial Officer may earn a quarterly bonus contingent on MicroTech increasing its net income in each period.
	b. The institution is experiencing a poor or deteriorating financial condition and management has personally guaranteed the debts of the institution.	No	

B. Opportunity to commit fraud

	Risk	Yes / No / N/A	Remarks
3.	The nature of the institution's industry or operations provides opportunities to engage in fraudulent financial reporting that can arise from the following:	Results are mixed	
	a. Assets, liabilities, revenues or expenses based on significant estimates that involve subjective judgments or uncertainties that are difficult to corroborate or that could significantly change in the near term in a way that might be financially disruptive to the institution.	No	MicroTech does have to estimate the amount of return reserve to book for each sale; however, the company does so using a method that includes considering historical return amounts and trends.
	b. Significant accounts or transactions with little or no supporting documentation or "audit trail"	No	
	c. The institution engages in material,	Yes	MicroTech fulfilled the largest sale of the

	nonrecurring transactions that occur near the end of the reporting period, comprise a substantial portion of earnings, or appear to be attempts to recognize large short-term gains.		year on the last day of the fiscal year. The sale was to a repeat customer.
4.	There is ineffective monitoring of management as a result of the following:	No	
	a. Domination of management by a single person or small group (in a nonowner managed business) without compensating controls.	No	
	b. Ineffective board of directors or audit committee oversight over the financial reporting process and internal control.	No	
	c. The board, audit committee, or management lacks sufficient expertise and industry experience, especially in new lines of business the institution is entering.	No	
5.	There is a complex or unstable organizational structure, as evidenced by the following:	No	
	a. High turnover of senior management, counsel, or board members.	No	Personnel have remained relatively constant.
	b. Significant operations conducted in remote locations that are difficult to monitor effectively.	No	
6.	Internal control components are deficient as a result of the following:	No	
	a. Inadequate monitoring of controls, including automated controls and controls over the financial reporting process.	No	
	b. Deficiencies in segregation of duties or independent checks. For example:	No	
	1. Vacant staff positions remain unfilled for extended periods	No	
	2. Failure to establish adequate segregation of duties between approval transactions and disbursement of funds	No	
	c. Deficiencies in accounting, financial reporting, or management reporting processes.	No	
	d. High turnover rates or employment of	No	

	ineffective accounting, internal audit, or information technology staff.		

C. Attitudes / Rationalizations

	Risk	Yes / No / N/A	Remarks
7.	Management has ineffective communication, implementation, support, or enforcement of the institution's values or ethical standards by management or the communication of inappropriate values or ethical standards.	No	
8.	Known history of violations of laws and regulations, or claims against the entity, its senior management, or board members alleging fraud or violations of laws and regulations.	No	There have been no allegations of fraud against the entity, its senior management, or board members.
9.	Management failing to correct known significant deficiencies or material weaknesses on a timely basis.	No	
10.	Recurring attempts by management to justify marginal or inappropriate accounting on the basis of materiality.	No	
11.	The following accounting and financial reporting considerations:	No	
	a. Inability to prepare accurate and timely financial reports, including interim reports.	No	Financial reports, including interim reports, have been prepared in a timely manner.
	b. Lack of timely and appropriate documentation for transactions	No	Transactions have been recorded in a timely manner and MicroTech has retained appropriate supporting documentation for transactions.
12.	The relationship between management and the engagement team is strained, as exhibited by the following:	No	
	a. Frequent disputes with the engagement team or predecessor auditor on accounting, auditing, or reporting matters.	No	We have conducted audits of MicroTech for the past several years and have no documented disputes with the client.
	b. Unreasonable demands on the engagement team, such as unreasonable time constraints regarding the completion of the audit or the issuance of the auditor's report.	No	

	c. Formal or informal restrictions on the engagement team that inappropriately limit access to people or information or the ability to communicate effectively with the board of directors or audit committee.	No	The audit team has not been restricted in their access to personnel or information.
	d. Inability or unwillingness by management to provide requested information in a timely manner to the engagement team.	No	Management has been responsive to requests made by the audit team.

Please click on the following tab to complete Evaluation Task 1.

Tab 6
Evaluation Task 1
Based on your review of the materials, what is your judgment of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 7
Presentation of Client Inquiry Dialogue with CFO & Divisional Controller

Transcript of discussion with:

Name(s):	**Title(s):**
Tom Johnson	Chief Financial Officer

The audit team has spoken several times with Tom Johnson, the Chief Financial Officer. He has direct responsibility for the financial statements. He has provided information from which the audit team has gained an understanding of the company and the company's plans for the future. He has made himself available when questions have arisen.

Please read the dialogue reported below of the client inquiry with Tom Johnson.

Dialogue

"You mentioned you wanted to talk about some things that happened at MicroTech during the past year. We have worked hard this year. We are in a pretty competitive market, but we have been developing some great new games.

As I mentioned before, we definitely face competition in the marketplace. To address this, we are continuously developing new video games. This past year we released several big hits and we have plans to follow these up with a strong line-up of games next year also. The nice thing is that our target market is broadening. Interactive software games have become an increasingly mainstream entertainment choice for a maturing, technologically sophisticated audience. The average age of a gamer is now about 28 years old and our target market now includes women also. Further, we expect that releasing some budget software games will help us grow our business. We see the opportunity to provide inexpensive entertainment and we are taking it. That is how we grow our sales.

Overall, we had a good year this year. We exceeded our sales for the prior year. Our increase in net sales reflects the expansion of our global publishing and distribution businesses. Our cost of sales increased because we expanded our scope of operations and because of our revenue growth.

Speaking of sales...we booked our largest sale ever this year. On October 31, we shipped 230,000 games to one of our best customers. Included in that sale were some of our new games that we think are going to be received well by the gamers in the market. Hopefully we can keep our momentum going.

I and several of our other execs have some incentive to keep the momentum up. As you probably know, my quarterly bonus is contingent on increasing net income each quarter. Several of our executives have such employment agreements. It is fairly common, and is how we tie our incentives to performance. We want this company to do well, so we have tried to structure our human resources policies to align with our growth strategy.

We have supported our growth strategy through the acquisition of several companies. We amortized goodwill associated with the acquisition of these companies, so our depreciation and amortization expense increased this year.

So that is a bit about the company. I know that we will continue to grow our sales, develop

new products and remain a leader in the market. I am confident that we can keep growing this company. If you have anymore questions, please just ask."

Transcript of discussion with:

Name(s):	**Title(s):**
Larry Smith	Divisional Controller

Larry Smith is the operating division's controller for MicroTech. He has a direct role in preparing the financial statements. The audit team has decided that you will speak with Larry because, as the divisional controller, he has a good understanding of some of the operations of the business.

Please read the dialogue reported below of the client inquiry with Larry Smith.

Dialogue

"Tom said that you might want to speak with me. Just to give you a picture of my role in the company, my duties include preparing the annual business plan and departmental budgets, maintaining and updating the inventory and costing systems, preparing weekly and monthly financial reports and communicating the results to department managers and support departments. I work closely with sales and marketing on overall pricing/financial strategies. I guess you could say I am a link between our upper management and our operations personnel.

As the controller of the operating division, I can answer your questions about everything from our warehouse procedures to our budgeting processes. I did hear that you wanted to talk with me about our marketplace and some of our sales.

We typically have a pretty good idea which games will be our real blockbusters, but sometimes the market for a specific game can be somewhat difficult to predict. In this industry, because of the uncertainty factor of which games will be a real hit with our audiences, we sometimes need to offer our customers the right to return what doesn't sell. It is a fairly common practice for video game distributors. When we sell the product, we book the sale net of an estimated return amount and book the reserve at the time of the sale. We have the reserve calculation down to a science now. It is based on historic return rates. We don't offer this with every sale, but we have to on some of our new game releases.

I heard that you wanted to know about some of our larger sales completed this year. Our biggest sale of the year was to D.C. Videos, our sales team managed to arrange that one just before year end. Actually, the shipment containing 230,000 video games went out on October 31. We ship to D.C. and their affiliates on a regular basis, but that sale was a great one to land. We had been working on that sale for a while. The sale shipped late in the year because things got hung up a bit on the customer's side. So we are happy to have that one wrapped up.

We are really focusing on setting ourselves up for a good year next year also. We have been working hard to generate good buzz around some of our new games. Selling and marketing expenses increased because of our increased marketing costs associated with establishing publishing programs and brand names. We want the games to be well known and our company to be a recognizable brand.

Let me know if you have any more questions as you go through the audit. I'd be happy to

help.”

Please click on the following tab to complete Evaluation Task 2.

Tab 8
Evaluation Task 2
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's CFO and Divisional Controller.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 9
Presentation of Client Inquiry Dialogue with Other Client Personnel

Transcript of discussion with:

Name(s):	**Title(s):**
Phil Jones	Warehouse Manager

Phil Jones is the warehouse manager for MicroTech. He does not have a direct role in preparing the financial statements. Phil has extensive experience in warehouse operations and has been the warehouse manager for MicroTech for over 12 years. The audit team has decided that you will speak with Phil because, as the warehouse manager, he has a good understanding of the operations of the business.

Please read the dialogue reported below of the client inquiry with Phil Jones.

Dialogue
"You mentioned that you wanted to talk with me about our shipping processes. Well, let me give you an overview of how we handle things down here in the warehouse. Typically, we receive the sales order on one of our terminals in the warehouse. Our guys will put all of the computers that are going to be shipped together in a pile separate from the other inventory. We have these handheld scanners so we can scan the bar code on each computer that we are putting in the pile so we know which ones are going out. It updates our inventory system for us too. These handhelds have really helped us cut back on keying errors since the workers don't have to manually type the barcodes in anymore. Anyway, once the games that are going to be shipped have been scanned into the system, we then go ahead and box them up and get them ready for shipment. We fill out a shipping document that includes what titles we are sending, how many, and where they are going. Our shipments vary in size by customer. Some of our customers only order a few titles at a time. Others send in some pretty big orders. Tom said that you may want to know about some of the sales orders we have fulfilled. We shipped out three pretty large orders on October 31. That was a hectic day, but we made it happen. We had three major shipments go out that day. One of the shipments contained 230,000 video games. That was our largest shipment this year. The shipment went out to D.C. Videos. We ship to D.C. and their affiliates on a regular basis. When we receive or ship orders, we record the titles and quantities of each game received or shipped out. The process is tedious, but helps us run a tight ship. Well, that is pretty much what goes on around here. I've got a good group of workers down here and we have been doing really well at keeping up with the orders. Let me know if you want a tour of the warehouse sometime. We are pretty pleased with how we run this place."

Please click on the following tab to complete Evaluation Task 3.

Tab 10
Evaluation Task 3
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's Warehouse Manager and what audit procedure(s) you would like to complete next.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Phil Jones, Warehouse Manager (WHM).

Please rate the level of experience of Phil Jones, the warehouse manager.

Low Level of Experience					Neutral					High Level of Experience
0	1	2	3	4	5	6	7	8	9	10

The information provided by *Phil Jones*, warehouse manager, influenced my fraud risk assessment judgment.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe that *Phil Jones*, WHM, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Phil Jones*, WHM is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Phil Jones*, WHM, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Please recall that you reviewed conversations with CFO Tom Johnson and Divisional Controller Larry Smith earlier. Please provide an additional assessment of Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

In light of the evidence gathered, do you have any comments or concerns that you want to raise with members of the engagement team?

[TEXT BOX]

Save and Continue

Tab 11
General Case Questions

Please complete the following questions.

Were there any inconsistencies between company personnel directly involved with the financial reporting process (e.g. the CFO and Divisional Controller) and operating personnel (e.g. the Warehouse Manager)?

☐ Yes ☐ No

Were you able to determine the actual company on which the case materials were based?

☐ Yes ☐ No

If you think so, please identify the company.

[TEXT BOX]

Demographic Information

Please complete the following questions.

What is your gender?

☐ Female ☐ Male

Please provide the name of your current employer.

[TEXT BOX]

Please provide your current job title (e.g. senior, manager, etc.).

[TEXT BOX]

How long have you worked as an auditor?

[YEARS BOX] [MONTHS BOX]

Have you ever worked on an audit where management fraud was detected?

☐ Yes ☐ No

If you answered yes to the question above, was an adverse opinion actually issued on one or more of these engagements?

☐ Yes ☐ No

Please enter your email address if you would like to be entered into the prize drawing (your email will not be used for any other purpose):

[TEXT BOX]

If you are willing to be contacted about the study after completing the case, please provide your contact information below.

[TEXT BOX]

[Submit!]

APPENDIX C

Case 3 – Fraud Condition/Warehouse Manager/Lower Experience

Audit Judgment Study

Tab 1
Introduction

This study concerns a judgment and decision-making task in an auditing context. You will be asked to assume the role of auditor evaluating a hypothetical client.

There are three parts to the study. First, you will read a description of a current audit client, view the results of some analytical procedures and the results of the fraud risk assessment. Next, you will read the dialogue from the client inquiry with the Chief Financial Officer and the Divisional Controller followed by the dialogue from the client inquiry with other client personnel. There are three evaluation tasks to record your judgments. There are no right or wrong answers in this study; rather, you will be asked to come up with your best judgment given the information provided.

Information about the company and each evaluation task appear on separate tabs throughout the exercise. Please read through and complete the tabs in order (proceeding from top to bottom). Once you have completed and saved an evaluation task, you will be able to access that tab again, but you will not be able to edit your responses. The tabs containing company information will be available for review throughout the task.

I am a PhD student at Virginia Tech and this research case is part of my program of study for my doctorate. As a former auditor, I realize that your time is very valuable and I appreciate your willingness to participate.

To encourage participation, I will be selecting three individuals from the pool of participants to receive a $100 Visa gift card. At the conclusion of the study, winners of the drawing will be contacted via e-mail during the following week. You may opt out of the drawing and still participate in the survey.

Participation in this study will take approximately 30 to 40 minutes. If you have any questions or concerns, please contact me via email (meabell@vt.edu). Thank you for your assistance!

Meghann Abell Cefaratti

Please click on the following tab to begin the case by reviewing the company's background information.

Tab 2
The Audit

You are part of the audit team assigned to the October 31, 2008 year-end audit for MicroTech. The company is subject to the normal reporting requirements of a publicly-owned company. The accounting functions are centralized and all transactions are processed in the main office. During the past three years, the company made no significant accounting policy changes.

Your firm has audited MicroTech for several years. Each of those years, the company has received an unqualified audit opinion. Relations between the audit team and management have been good in the past.

Background Information – MicroTech, Inc.

MicroTech, Inc. is a leading global developer, publisher and distributor of interactive software games. Its software operates on PCs and video game consoles manufactured by Sony, Nintendo and Sega. They develop software internally and engage third parties to develop software on their behalf. They publish software under multiple well-known labels.

They sell internally developed software as well as third-party software to retail outlets in the United States. For the year ending October 31, 2008 the sale of third-party products accounted for approximately 47.8% of company revenues, with sales to their five largest customers accounting for approximately 20.0% of revenues. No single customer accounted for more than 10% of revenues during this period. Their customers include WalMart, Toys R Us, Electronics Boutique, Babbage's, Best Buy and Ames Department Stores, as well as leading national and regional drug store, supermarket and discount store chains and specialty retailers. They also have publishing and distribution operations in several foreign countries.

A large and growing installed base of advanced PCs and video game consoles combined with expanding gamer demographics have driven demand for interactive software games in recent years. Increased demand for interactive software is expected as a result of the emergence of next-generation platforms which are designed to exploit the convergence of computing, digital technologies and the Internet.

They release games with potential for broad consumer appeal. The company released more than sixty games during the year ending October 31, 2008. Their five best-selling games, in the aggregate, accounted for approximately 12.0% of their revenues. They plan to deliver high-profile game content for both PC and evolving console markets, particularly for next-generation platforms with potential for significant market penetration. Sales of the games are seasonal, with peak shipments typically occurring in the fourth calendar quarter (the fourth and first fiscal quarters) as a result of increased demand for the games during the holiday season.

The company's marketing and promotional efforts are intended to maximize exposure and broaden distribution of their games, promote brand name recognition, assist retailers and properly position, package and merchandise their games. They market the games by implementing aggressive public relations campaigns, primarily using print and on-line advertising and to a lesser extent television and radio spots. They also employ various other

marketing methods designed to promote consumer awareness, including in-store promotions and point-of-purchase displays, direct mail, cooperative advertising, attendance at trade shows, as well as the use of distinctive packaging.

The principal sources of revenues are derived from publishing and distribution operations. Publishing revenues are derived from the sale of internally developed software or software licensed from third parties. Distribution revenues are derived from the sale of third-party software and hardware. They recognize revenue from software sales when product ownership and risk of loss pass to their customers.

In the market for video games, the demand for specific games can differ from expectations. When demand for specific games falls below expectations, the company does sometimes accept returns. At the time of the original sale, a reserve for future returns is established and the company recognizes revenues net of returns. The reserve amount is based on return policies and historical return rates. If future returns significantly exceed return reserves, operating results would be adversely affected.

Please click on the following tab to review the company's 2008 unaudited financial statements and 2007 audited financial statements.

Tab 3
Unaudited Financial Information Provided by MicroTech

The income statement and balance sheet for the current year (2008) and the prior year (2007) are provided below.

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
Net Sales	$387,006	$305,932
Cost of goods sold	247,796	215,122
Gross Profit	139,210	90,810
Operating Expenses:		
Selling and marketing	42,854	30,108
General and administrative	36,409	25,236
Research and development costs	5,668	5,263
Depreciation and amortization	9,805	2,822
Other, net	(587)	0
Total operating expenses	94,149	63,429
Income from operations	45,061	27,381
Interest expense, net	6,069	2,910
Equity in loss of affiliate	763	45
Total non-operating expenses	6,832	2,955
Income before income taxes	38,229	24,426
Income tax provision	13,266	8,094
Net income	$24,963	$16,332
Share and per share information:		
Net income per share:		
Basic	$0.91	$0.79
Diluted	$0.88	$0.76
Weighted average shares outstanding:		
Basic	27,307	20,690
Diluted	28,330	21,515

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
ASSETS		
Current assets:		
Cash and cash equivalents	$5,245	$10,374
Accounts receivable, net of allowances	134,877	107,799
Inventories	44,922	41,300
Prepaid royalties	19,721	20,118
Prepaid expenses and other current assets	6,551	6,374
Investments	2,926	0
Deferred tax asset	666	2,005
Total current assets	214,908	187,970
Fixed assets, net	5,260	4,120
Prepaid royalties	1,303	1,510
Capitalized software development costs, net	9,613	2,227
Investments	28,487	0
Investment in affiliates	0	3,955
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	30,857
Other assets, net	1,565	1,073
Total Assets	$351,641	$231,712
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$47,972	$71,230
Accrued expenses and other current liabilities	19,357	19,157
Lines of credit	84,605	56,048
Current portion of capital lease obligation	89	65
Notes payable, net of discount	0	31
Total current liabilities	152,023	146,531
Loan payable, net of discount	12,268	58
Capital lease obligation, net of current portion	348	20
Total liabilities	164,639	146,609
Stockholders' equity:		
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231
Additional paid-in capital	157,738	67,345
Deferred compensation	(5)	(48)
Retained earnings	43,365	18,402
Accumulated other comprehensive loss	(14,408)	(827)
Total stockholders' equity	187,002	85,103
Total Liabilities and Stockholders' Equity	$351,641	$231,712

Please click on the following tab to review preliminary analytical procedures results.

Tab 4
Presentation of Analytical Procedures Results

A member of your audit team has provided the following analytical procedures results to you. The instructions appearing in the textbox on the workpaper explain what the member has documented, the results follow.

Results of Analytical Procedures Performed During Planning

Analytical procedures performed during planning may be helpful in identifying the risks of material misstatement due to fraud. However, because such analytical procedures generally use data aggregated at a high level, the results of those procedures only provide a broad initial indication about whether a material misstatement of the financial statements may exist. Accordingly, the results of these procedures are considered along with the other sources of information about the fraud risk assessment.

In planning the audit, we perform analytical procedures relating to revenue with the objective of identifying unusual or unexpected relationships involving revenue accounts or significant transactions that may be indicative of a material misstatement due to fraudulent financial reporting.

Presented below you will find (1) a calculation of the percent change in the account from the prior year, (2) a common size income statement and a common size balance sheet, (3) a comparison of actual results to the company's budget, and (4) ratio analysis.

Financial Statements – Prior Year Comparisons

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
Net Sales	$387,006	$305,932	26.50%
Cost of goods sold	247,796	215,122	15.19%
Gross Profit	139,210	90,810	53.30%
Operating Expenses:			
Selling and marketing	42,854	30,108	42.33%
General and administrative	36,409	25,236	44.27%
Research and development costs	5,668	5,263	7.70%
Depreciation and amortization	9,805	2,822	247.45%
Other, net	(587)	0	100.00%
Total operating expenses	94,149	63,429	48.43%
Income from operations	45,061	27,381	64.57%
Interest expense, net	6,069	2,910	108.56%
Equity in loss of affiliate	763	45	1595.56%
Total non-operating expenses	6,832	2,955	131.20%
Income before income taxes	38,229	24,426	56.51%
Income tax provision	13,266	8,094	63.90%
Net income	$24,963	$16,332	52.85%
Share and per share information:			
Net income per share:			
Basic	$0.91	$0.79	15.19%
Diluted	$0.88	$0.76	15.79%
Weighted average shares outstanding:			
Basic	27,307	20,690	31.98%
Diluted	28,330	21,515	31.68%

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
ASSETS			
Current assets:			
Cash and cash equivalents	$5,245	$10,374	-49.44%
Accounts receivable, net of allowances	134,877	107,799	25.12%
Inventories	44,922	41,300	8.77%
Prepaid royalties	19,721	20,118	-1.97%
Prepaid expenses and other current assets	6,551	6,374	2.78%
Investments	2,926	0	100.00%
Deferred tax asset	666	2,005	-66.78%
Total current assets	214,908	187,970	14.33%
Fixed assets, net	5,260	4,120	27.67%
Prepaid royalties	1,303	1,510	-13.71%
Capitalized software development costs, net	9,613	2,227	331.66%
Investments	28,487	0	100.00%
Investment in affiliates	0	3,955	-100.00%
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	30,857	193.30%
Other assets, net	1,565	1,073	45.85%
Total Assets	$351,641	$231,712	51.76%
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	$47,972	$71,230	-32.65%
Accrued expenses and other current liabilities	19,357	19,157	1.04%
Lines of credit	84,605	56,048	50.95%
Current portion of capital lease obligation	89	65	36.92%
Notes payable, net of discount	0	31	-100.00%
Total current liabilities	152,023	146,531	3.75%
Loan payable, net of discount	12,268	58	21051.72%
Capital lease obligation, net of current portion	348	20	1640.00%
Total liabilities	164,639	146,609	12.30%
Stockholders' equity:			
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231	35.06%
Additional paid-in capital	157,738	67,345	134.22%
Deferred compensation	(5)	(48)	-89.58%
Retained earnings	43,365	18,402	135.65%
Accumulated other comprehensive loss	(14,408)	(827)	1642.20%
Total stockholders' equity	187,002	85,103	119.74%
Total Liabilities and Stockholders' Equity	$351,641	$231,712	51.76%

Common-Size Financial Statements

MicroTech, Inc
Common Size Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008		2007	
	Unaudited	% of Net Sales	Audited	% of Net Sales
Net Sales	$387,006	100.00%	$305,932	100.00%
Cost of goods sold	247,796	64.03%	215,122	70.32%
Gross Profit	139,210	35.97%	90,810	29.68%
Operating Expenses:				
Selling and marketing	42,854	11.07%	30,108	9.84%
General and administrative	36,409	9.41%	25,236	8.25%
Research and development costs	5,668	1.46%	5,263	1.72%
Depreciation and amortization	9,805	2.53%	2,822	0.92%
Other, net	(587)	-0.15%	0	0.00%
Total operating expenses	94,149	24.33%	63,429	20.73%
Income from operations	45,061	11.64%	27,381	8.95%
Interest expense, net	6,069	1.57%	2,910	0.95%
Equity in loss of affiliate	763	0.20%	45	0.01%
Total non-operating expenses	6,832	1.77%	2,955	0.97%
Income before income taxes	38,229	9.88%	24,426	7.98%
Income tax provision	13,266	3.43%	8,094	2.65%
Net income	$24,963	6.45%	$16,332	5.34%

MicroTech, Inc
Common-Size Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	%	2007 Audited	%
ASSETS				
Current assets:				
Cash and cash equivalents	$5,245	1.49%	$10,374	4.48%
Accounts receivable, net of allowances	134,877	38.36%	107,799	46.52%
Inventories	44,922	12.77%	41,300	17.82%
Prepaid royalties	19,721	5.61%	20,118	8.68%
Prepaid expenses and other current assets	6,551	1.86%	6,374	2.75%
Investments	2,926	0.83%	0	0.00%
Deferred tax asset	666	0.19%	2,005	0.87%
Total current assets	214,908	61.12%	187,970	81.12%
Fixed assets, net	5,260	1.50%	4,120	1.78%
Prepaid royalties	1,303	0.37%	1,510	0.65%
Capitalized software development costs, net	9,613	2.73%	2,227	0.96%
Investments	28,487	8.10%	0	0.00%
Investment in affiliates	0	0.00%	3,955	1.71%
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	25.74%	30,857	13.32%
Other assets, net	1,565	0.45%	1,073	0.46%
Total Assets	$351,641	100.00%	$231,712	100.00%
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	$47,972	13.64%	$71,230	30.74%
Accrued expenses and other current liabilities	19,357	5.50%	19,157	8.27%
Lines of credit	84,605	24.06%	56,048	24.19%
Current portion of capital lease obligation	89	0.03%	65	0.03%
Notes payable, net of discount	0	0.00%	31	0.01%
Total current liabilities	152,023	43.23%	146,531	63.24%
Loan payable, net of discount	12,268	3.49%	58	0.03%
Capital lease obligation, net of current portion	348	0.10%	20	0.01%
Total liabilities	164,639	46.82%	146,609	63.27%
Stockholders' equity:				
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	0.09%	231	0.10%
Additional paid-in capital	157,738	44.86%	67,345	29.06%
Deferred compensation	(5)	0.00%	(48)	-0.02%
Retained earnings	43,365	12.33%	18,402	7.94%
Accumulated other comprehensive loss	(14,408)	-4.10%	(827)	-0.36%
Total stockholders' equity	187,002	53.18%	85,103	36.73%
Total Liabilities and Stockholders' Equity	$351,641	100.00%	$231,712	100.00%

Financial Statements – Actual vs. Budget

MicroTech, Inc
Unaudited Income Statement - Actual vs. Budget Analysis
For the year ended October 31, 2008
(in thousands)

	Actual	Budget	$ Variance	% Variance
Net Sales	$387,006	$376,000	11,006	2.93%
Cost of goods sold	247,796	240,500	7,296	3.03%
Gross Profit	139,210	135,500	3,710	2.74%
Operating Expenses:				
Selling and marketing	42,854	43,000	(146)	-0.34%
General and administrative	36,409	36,800	(391)	-1.06%
Research and development costs	5,668	5,600	68	1.21%
Depreciation and amortization	9,805	10,000	(195)	-1.95%
Other, net	(587)	(600)	13	-2.17%
Total operating expenses	94,149	94,800	(651)	-0.69%
Income from operations	45,061	40,700	4,361	10.71%
Interest expense, net	6,069	6,100	(31)	-0.51%
Equity in loss of affiliate	763	750	13	1.73%
Total non-operating expenses	6,832	6,850	(18)	-0.26%
Income before income taxes	38,229	33,850	4,379	12.94%
Income tax provision	13,266	12,800	466	3.64%
Net income	$24,963	$21,050	3,913	18.59%
Share and per share information:				
Net income per share:				
Basic	$0.91	$0.77	$0.14	18.18%
Diluted	$0.88	$0.74	$0.14	18.92%
Weighted average shares outstanding:				
Basic	27,307	27,307		
Diluted	28,330	28,330		

Ratio Analysis Results

		2008	2007
Liquidity:			
	Current	1.41	1.28
	Quick	0.92	0.81
Solvency:			
	Debt to Assets	0.47	0.63
	Long-term Debt to Equity	0.07	0.00
Activity:			
	Inventory Turnover	5.52	5.21
	Age of Inventory (days)	65.26	69.11
	Accounts Receivable Turnover	2.87	2.84
	Age of Accounts Receivable (days)	125.47	126.85
Profitability:			
	Gross Margin	35.97%	29.68%
	Profit Margin on Sales	6.45%	5.34%
	Return on Total Assets	8.82%	8.30%
	Operating Profit Margin	11.64%	8.95%
	Pretax Margin	9.88%	7.98%
Sales:			
	Sales to Accounts Receivable	2.87	2.84
	Sales to Current Assets	1.80	1.63
	Sales to Accounts Payable	8.07	4.29
	Sales to Net Income	15.50	18.73
	Sales to Total Assets	1.10	1.32

Equations:
Current ratio: current assets / current liabilities
Quick ratio: (cash and cash equivalents + net accounts receivable) / current liabilities
Debt to assets: total debt / total assets
Long-term debt to equity: long-term debt / stockholders' equity
Inventory turnover: cost of sales / inventory
Age of inventory: 360 days / inventory turnover
Accounts receivable turnover: sales / accounts receivable
Age of accounts receivable: 360 days / accounts receivable turnover
Gross margin: total gross margin (sales – cost of goods sold) / sales
Profit margin on sales: net income / total revenues
Return on total assets: (net income + interest expense) / total assets
Operating profit margin: income from operations / sales
Pretax margin: net profit before taxes / sales

Sales to accounts receivable: sales / accounts receivable
Sales to current assets: sales / current assets
Sales to accounts payable: sales / accounts payable
Sales to net income: sales / net income
Sales to total assets: sales / total assets

Please click on the following tab to review the preliminary fraud risk assessment.

Tab 5
Presentation of Fraud Risk Assessment Results

A member of your audit team has provided you with the following excerpt from the Fraud Risk Assessment workpaper explaining selected risk assessment results. The instructions appearing in the textbox on the workpaper explain what the member has documented. The results of the audit team member's work appear in the table. Not all risk assessment conclusions include a remark.

Identifying Potential Risks of Material Misstatement Due To Fraud
Description and Characteristics of Fraud

Two types of misstatements are relevant to our consideration of fraud: 1) misstatements arising from fraudulent financial reporting; and 2) misstatements arising from misappropriation of assets.

Three conditions generally are present when fraud occurs: (1) management or other employees have an incentive or are under pressure to commit fraud; (2) circumstances exist —for example, the absence of controls, ineffective controls or the ability of management to override controls— that provide an opportunity for a fraud to be perpetrated; and (3) those involved are able to rationalize a fraudulent act as being consistent with their personal code of ethics. Some individuals possess an attitude, character, or set of ethical values that allow them to knowingly and intentionally commit a dishonest act.

We expect that one or more risks of material misstatement due to fraud will be identified for most engagements.

Fraud Risk Factors Associated With Fraudulent Financial Reporting

Identifying one or more fraud risk factors does not necessarily mean that internal control at the entity level is ineffective.

A. Incentives / Pressure to commit fraud

	Risk	Yes / No / N/A	Remarks
1.	Financial stability or profitability is threatened by economic, industry, or operating conditions, such as (or as indicated by):	Results are mixed	Please see results for sub-factors below.
	a. High degree of competition or market saturation.	Yes	While MicroTech faces a high degree of competition, the market for new games (i.e. video games) is growing.
	b. High vulnerability to rapid changes, such as changes in technology, or product obsolescence.	Yes	
	c. Significant declines in customer demand and increasing business failures in either the industry or overall	No	The market for video games has expanded to include customers who do not fit the traditional gaming demographic; the new

	economy.		market includes both females and an older audience.
	d. New accounting, statutory, or regulatory requirements that could impair the institution's profitability, financial stability or regulatory capital ratios.	No	
2.	Information available indicates that management or the board of directors' personal financial situation is threatened by the entity's financial performance arising from the following:	Results are mixed	Please see results for sub-factors (a) and (b) below.
	a. Significant portions of their compensation (e.g., bonuses, stock options, and earn out arrangements) being contingent upon achieving aggressive targets for stock price, operation results, financial position, or cash flow.	Yes	The Chief Operating Officer and Chief Financial Officer may earn a quarterly bonus contingent on MicroTech increasing its net income in each period.
	b. The institution is experiencing a poor or deteriorating financial condition and management has personally guaranteed the debts of the institution.	No	

B. Opportunity to commit fraud

	Risk	Yes / No / N/A	Remarks
3.	The nature of the institution's industry or operations provides opportunities to engage in fraudulent financial reporting that can arise from the following:	Results are mixed	
	a. Assets, liabilities, revenues or expenses based on significant estimates that involve subjective judgments or uncertainties that are difficult to corroborate or that could significantly change in the near term in a way that might be financially disruptive to the institution.	No	MicroTech does have to estimate the amount of return reserve to book for each sale; however, the company does so using a method that includes considering historical return amounts and trends.
	b. Significant accounts or transactions with little or no supporting documentation or "audit trail"	No	
	c. The institution engages in material, nonrecurring transactions that occur	Yes	MicroTech fulfilled the largest sale of the year on the last day of the fiscal year. The

	near the end of the reporting period, comprise a substantial portion of earnings, or appear to be attempts to recognize large short-term gains.		sale was to a repeat customer.
4.	There is ineffective monitoring of management as a result of the following:	No	
	a. Domination of management by a single person or small group (in a nonowner managed business) without compensating controls.	No	
	b. Ineffective board of directors or audit committee oversight over the financial reporting process and internal control.	No	
	c. The board, audit committee, or management lacks sufficient expertise and industry experience, especially in new lines of business the institution is entering.	No	
5.	There is a complex or unstable organizational structure, as evidenced by the following:	No	
	a. High turnover of senior management, counsel, or board members.	No	Personnel have remained relatively constant.
	b. Significant operations conducted in remote locations that are difficult to monitor effectively.	No	
6.	Internal control components are deficient as a result of the following:	No	
	a. Inadequate monitoring of controls, including automated controls and controls over the financial reporting process.	No	
	b. Deficiencies in segregation of duties or independent checks. For example:	No	
	1. Vacant staff positions remain unfilled for extended periods	No	
	2. Failure to establish adequate segregation of duties between approval transactions and disbursement of funds	No	
	c. Deficiencies in accounting, financial reporting, or management reporting processes.	No	
	d. High turnover rates or employment of ineffective accounting, internal audit,	No	

	or information technology staff.		

C. Attitudes / Rationalizations

	Risk	Yes / No / N/A	Remarks
7.	Management has ineffective communication, implementation, support, or enforcement of the institution's values or ethical standards by management or the communication of inappropriate values or ethical standards.	No	
8.	Known history of violations of laws and regulations, or claims against the entity, its senior management, or board members alleging fraud or violations of laws and regulations.	No	There have been no allegations of fraud against the entity, its senior management, or board members.
9.	Management failing to correct known significant deficiencies or material weaknesses on a timely basis.	No	
10.	Recurring attempts by management to justify marginal or inappropriate accounting on the basis of materiality.	No	
11.	The following accounting and financial reporting considerations:	No	
	a. Inability to prepare accurate and timely financial reports, including interim reports.	No	Financial reports, including interim reports, have been prepared in a timely manner.
	b. Lack of timely and appropriate documentation for transactions	No	Transactions have been recorded in a timely manner and MicroTech has retained appropriate supporting documentation for transactions.
12.	The relationship between management and the engagement team is strained, as exhibited by the following:	No	
	a. Frequent disputes with the engagement team or predecessor auditor on accounting, auditing, or reporting matters.	No	We have conducted audits of MicroTech for the past several years and have no documented disputes with the client.
	b. Unreasonable demands on the engagement team, such as unreasonable time constraints regarding the completion of the audit or the issuance of the auditor's report.	No	
	c. Formal or informal restrictions on the	No	The audit team has not been restricted in

	engagement team that inappropriately limit access to people or information or the ability to communicate effectively with the board of directors or audit committee.		their access to personnel or information.
	d. Inability or unwillingness by management to provide requested information in a timely manner to the engagement team.	No	Management has been responsive to requests made by the audit team.

Please click on the following tab to complete Evaluation Task 1.

Tab 6
Evaluation Task 1
Based on your review of the materials, what is your judgment of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 7
Presentation of Client Inquiry Dialogue with CFO & Divisional Controller

Transcript of discussion with:

Name(s):	**Title(s):**
Tom Johnson	Chief Financial Officer

The audit team has spoken several times with Tom Johnson, the Chief Financial Officer. He has direct responsibility for the financial statements. He has provided information from which the audit team has gained an understanding of the company and the company's plans for the future. He has made himself available when questions have arisen.

Please read the dialogue reported below of the client inquiry with Tom Johnson.

Dialogue
"You mentioned you wanted to talk about some things that happened at MicroTech during the past year. We have worked hard this year. We are in a pretty competitive market, but we have been developing some great new games. As I mentioned before, we definitely face competition in the marketplace. To address this, we are continuously developing new video games. This past year we released several big hits and we have plans to follow these up with a strong line-up of games next year also. The nice thing is that our target market is broadening. Interactive software games have become an increasingly mainstream entertainment choice for a maturing, technologically sophisticated audience. The average age of a gamer is now about 28 years old and our target market now includes women also. Further, we expect that releasing some budget software games will help us grow our business. We see the opportunity to provide inexpensive entertainment and we are taking it. That is how we grow our sales. Overall, we had a good year this year. We exceeded our sales for the prior year. Our increase in net sales reflects the expansion of our global publishing and distribution businesses. Our cost of sales increased because we expanded our scope of operations and because of our revenue growth. Speaking of sales...we booked our largest sale ever this year. On October 31, we shipped 230,000 games to one of our best customers. Included in that sale were some of our new games that we think are going to be received well by the gamers in the market. Hopefully we can keep our momentum going. I and several of our other execs have some incentive to keep the momentum up. As you probably know, my quarterly bonus is contingent on increasing net income each quarter. Several of our executives have such employment agreements. It is fairly common, and is how we tie our incentives to performance. We want this company to do well, so we have tried to structure our human resources policies to align with our growth strategy. We have supported our growth strategy through the acquisition of several companies. We amortized goodwill associated with the acquisition of these companies, so our depreciation and amortization expense increased this year. So that is a bit about the company. I know that we will continue to grow our sales, develop

new products and remain a leader in the market. I am confident that we can keep growing this company. If you have anymore questions, please just ask."

Transcript of discussion with:

Name(s):	Title(s):
Larry Smith	Divisional Controller

Larry Smith is the operating division's controller for MicroTech. He has a direct role in preparing the financial statements. The audit team has decided that you will speak with Larry because, as the divisional controller, he has a good understanding of some of the operations of the business.

Please read the dialogue reported below of the client inquiry with Larry Smith.

Dialogue

"Tom said that you might want to speak with me. Just to give you a picture of my role in the company, my duties include preparing the annual business plan and departmental budgets, maintaining and updating the inventory and costing systems, preparing weekly and monthly financial reports and communicating the results to department managers and support departments. I work closely with sales and marketing on overall pricing/financial strategies. I guess you could say I am a link between our upper management and our operations personnel.

As the controller of the operating division, I can answer your questions about everything from our warehouse procedures to our budgeting processes. I did hear that you wanted to talk with me about our marketplace and some of our sales.

We typically have a pretty good idea which games will be our real blockbusters, but sometimes the market for a specific game can be somewhat difficult to predict. In this industry, because of the uncertainty factor of which games will be a real hit with our audiences, we sometimes need to offer our customers the right to return what doesn't sell. It is a fairly common practice for video game distributors. When we sell the product, we book the sale net of an estimated return amount and book the reserve at the time of the sale. We have the reserve calculation down to a science now. It is based on historic return rates. We don't offer this with every sale, but we have to on some of our new game releases.

I heard that you wanted to know about some of our larger sales completed this year. Our biggest sale of the year was to D.C. Videos, our sales team managed to arrange that one just before year end. Actually, the shipment containing 230,000 video games went out on October 31. We ship to D.C. and their affiliates on a regular basis, but that sale was a great one to land. We had been working on that sale for a while. The sale shipped late in the year because things got hung up a bit on the customer's side. So we are happy to have that one wrapped up.

We are really focusing on setting ourselves up for a good year next year also. We have been working hard to generate good buzz around some of our new games. Selling and marketing expenses increased because of our increased marketing costs associated with establishing publishing programs and brand names. We want the games to be well known and our company to be a recognizable brand.

Let me know if you have any more questions as you go through the audit. I'd be happy to

help.”

Please click on the following tab to complete Evaluation Task 2.

Tab 8
Evaluation Task 2
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's CFO and Divisional Controller.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 9
Presentation of Client Inquiry Dialogue with Other Client Personnel

Transcript of discussion with:

Name(s):	**Title(s):**
Phil Jones	Warehouse Manager

Phil Jones is the warehouse manager for MicroTech. He does not have a direct role in preparing the financial statements. Phil has limited experience in warehouse operations and has been the warehouse manager for MicroTech for two years. The audit team has decided that you will speak with Phil because, as the warehouse manager, he has a good understanding of the operations of the business.

Please read the dialogue reported below of the client inquiry with Phil Jones.

Dialogue
"You mentioned that you wanted to talk with me about our shipping processes. Well, let me give you an overview of how we handle things down here in the warehouse. Typically, we receive the sales order on one of our terminals in the warehouse. Our guys will put all of the games that are going to be shipped together in a pile separate from the other inventory. We have these handheld scanners so we can scan the bar code on each game that we are putting in the pile so we know which ones are going out. It updates our inventory system for us too. These handhelds have really helped us cut back on keying errors since the workers don't have to manually type the barcodes in anymore. Anyway, once the games that are going to be shipped have been scanned into the system, we then go ahead and box them up and get them ready for shipment. We fill out a shipping document that includes what titles we are sending, how many, and where they are going. Our shipments vary in size by customer. Some of our customers only order a few titles at a time. Others send in some pretty big orders. Tom said that you may want to know about some of the sales orders we have fulfilled. We shipped out three pretty large orders on October 31. That was a hectic day, but we made it happen. One of the shipments contained 230,000 video games. That was our largest shipment this year. The shipment went out to D.C. Videos. We ship to D.C. and their affiliates on a regular basis. Actually, we also receive games from one of their affiliates. About a month after we sent out that large shipment, we received a shipment containing the same number of games as we had shipped out earlier. Typically we have a purchase order number waiting to be matched up with the shipment, but on this one, we had to call the purchasing manager and he said he was in the process of creating the PO. He said that Tom, our CFO, and Larry, our divisional controller, called and said to go ahead and create a PO and send it down to us as soon as possible. From what I heard, it was some deal Tom had worked out directly with the vendor. Oh, one more thing, typically we record the titles and quantities of each game received on the receiving report, but on this one Tom instructed us to record the receipt as "assorted product".

I only bring it up because you mentioned that you wanted to know about any exceptions to our receiving process that may have taken place this year. That is really the only one that I can think of, everything else went pretty smoothly.

Well, that is pretty much what goes on around here. I've got a good group of workers down here and we have been doing really well at keeping up with the orders. Let me know if you want a tour of the warehouse sometime. We are pretty pleased with how we run this place."

Please click on the following tab to complete Evaluation Task 3.

Tab 10
Evaluation Task 3
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's Warehouse Manager and what audit procedure(s) you would like to complete next.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Phil Jones, Warehouse Manager (WHM).

Please rate the level of experience of Phil Jones, the warehouse manager.

Low Level of Experience					Neutral					High Level of Experience
0	1	2	3	4	5	6	7	8	9	10

The information provided by *Phil Jones*, warehouse manager, influenced my fraud risk assessment judgment.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe that *Phil Jones*, WHM, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Phil Jones*, WHM is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Phil Jones*, WHM, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Please recall that you reviewed conversations with CFO Tom Johnson and Divisional Controller Larry Smith earlier. Please provide an additional assessment of Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

In light of the evidence gathered, do you have any comments or concerns that you want to raise with members of the engagement team?

[TEXT BOX]

Save and Continue

Tab 11
General Case Questions

Please complete the following questions.

Were there any inconsistencies between company personnel directly involved with the financial reporting process (e.g. the CFO and Divisional Controller) and operating personnel (e.g. the Warehouse Manager)?

☐ Yes ☐ No

Were you able to determine the actual company on which the case materials were based?

☐ Yes ☐ No

If you think so, please identify the company.

[TEXT BOX]

Demographic Information

Please complete the following questions.

What is your gender?

☐ Female ☐ Male

Please provide the name of your current employer.

[TEXT BOX]

Please provide your current job title (e.g. senior, manager, etc.).

[TEXT BOX]

How long have you worked as an auditor?

[YEARS BOX] [MONTHS BOX]

Have you ever worked on an audit where management fraud was detected?

☐ Yes ☐ No

If you answered yes to the question above, was an adverse opinion actually issued on one or more of these engagements?

☐ Yes ☐ No

Please enter your email address if you would like to be entered into the prize drawing (your email will not be used for any other purpose):

[TEXT BOX]

If you are willing to be contacted about the study after completing the case, please provide your contact information below.

[TEXT BOX]

[Submit!]

APPENDIX D

Case 4 – No Fraud Condition/ Warehouse Manager/Lower Experience

Audit Judgment Study

Tab 1
Introduction

This study concerns a judgment and decision-making task in an auditing context. You will be asked to assume the role of auditor evaluating a hypothetical client.

There are three parts to the study. First, you will read a description of a current audit client, view the results of some analytical procedures and the results of the fraud risk assessment. Next, you will read the dialogue from the client inquiry with the Chief Financial Officer and the Divisional Controller followed by the dialogue from the client inquiry with other client personnel. There are three evaluation tasks to record your judgments. There are no right or wrong answers in this study; rather, you will be asked to come up with your best judgment given the information provided.

Information about the company and each evaluation task appear on separate tabs throughout the exercise. Please read through and complete the tabs in order (proceeding from top to bottom). Once you have completed and saved an evaluation task, you will be able to access that tab again, but you will not be able to edit your responses. The tabs containing company information will be available for review throughout the task.

I am a PhD student at Virginia Tech and this research case is part of my program of study for my doctorate. As a former auditor, I realize that your time is very valuable and I appreciate your willingness to participate.

To encourage participation, I will be selecting three individuals from the pool of participants to receive a $100 Visa gift card. At the conclusion of the study, winners of the drawing will be contacted via e-mail during the following week. You may opt out of the drawing and still participate in the survey.

Participation in this study will take approximately 30 to 40 minutes. If you have any questions or concerns, please contact me via email (meabell@vt.edu). Thank you for your assistance!

Meghann Abell Cefaratti

Please click on the following tab to begin the case by reviewing the company's background information.

Tab 2
The Audit

You are part of the audit team assigned to the October 31, 2008 year-end audit for MicroTech. The company is subject to the normal reporting requirements of a publicly-owned company. The accounting functions are centralized and all transactions are processed in the main office. During the past three years, the company made no significant accounting policy changes.

Your firm has audited MicroTech for several years. Each of those years, the company has received an unqualified audit opinion. Relations between the audit team and management have been good in the past.

Background Information – MicroTech, Inc.

MicroTech, Inc. is a leading global developer, publisher and distributor of interactive software games. Its software operates on PCs and video game consoles manufactured by Sony, Nintendo and Sega. They develop software internally and engage third parties to develop software on their behalf. They publish software under multiple well-known labels.

They sell internally developed software as well as third-party software to retail outlets in the United States. For the year ending October 31, 2008 the sale of third-party products accounted for approximately 47.8% of company revenues, with sales to their five largest customers accounting for approximately 20.0% of revenues. No single customer accounted for more than 10% of revenues during this period. Their customers include WalMart, Toys R Us, Electronics Boutique, Babbage's, Best Buy and Ames Department Stores, as well as leading national and regional drug store, supermarket and discount store chains and specialty retailers. They also have publishing and distribution operations in several foreign countries.

A large and growing installed base of advanced PCs and video game consoles combined with expanding gamer demographics have driven demand for interactive software games in recent years. Increased demand for interactive software is expected as a result of the emergence of next-generation platforms which are designed to exploit the convergence of computing, digital technologies and the Internet.

They release games with potential for broad consumer appeal. The company released more than sixty games during the year ending October 31, 2008. Their five best-selling games, in the aggregate, accounted for approximately 12.0% of their revenues. They plan to deliver high-profile game content for both PC and evolving console markets, particularly for next-generation platforms with potential for significant market penetration. Sales of the games are seasonal, with peak shipments typically occurring in the fourth calendar quarter (the fourth and first fiscal quarters) as a result of increased demand for the games during the holiday season.

The company's marketing and promotional efforts are intended to maximize exposure and broaden distribution of their games, promote brand name recognition, assist retailers and properly position, package and merchandise their games. They market the games by implementing aggressive public relations campaigns, primarily using print and on-line advertising and to a lesser extent television and radio spots. They also employ various other

marketing methods designed to promote consumer awareness, including in-store promotions and point-of-purchase displays, direct mail, cooperative advertising, attendance at trade shows, as well as the use of distinctive packaging.

The principal sources of revenues are derived from publishing and distribution operations. Publishing revenues are derived from the sale of internally developed software or software licensed from third parties. Distribution revenues are derived from the sale of third-party software and hardware. They recognize revenue from software sales when product ownership and risk of loss pass to their customers.

In the market for video games, the demand for specific games can differ from expectations. When demand for specific games falls below expectations, the company does sometimes accept returns. At the time of the original sale, a reserve for future returns is established and the company recognizes revenues net of returns. The reserve amount is based on return policies and historical return rates. If future returns significantly exceed return reserves, operating results would be adversely affected.

Please click on the following tab to review the company's 2008 unaudited financial statements and 2007 audited financial statements.

Tab 3
Financial Information Provided by MicroTech

The income statement and balance sheet for the current year (2008) and the prior year (2007) are provided below.

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
Net Sales	$371,639	$305,932
Cost of goods sold	239,094	215,122
Gross Profit	132,545	90,810
Operating Expenses:		
Selling and marketing	42,854	30,108
General and administrative	36,409	25,236
Research and development costs	5,668	5,263
Depreciation and amortization	9,805	2,822
Other, net	(587)	0
Total operating expenses	94,149	63,429
Income from operations	38,396	27,381
Interest expense, net	6,069	2,910
Equity in loss of affiliate	763	45
Total non-operating expenses	6,832	2,955
Income before income taxes	31,564	24,426
Income tax provision	10,953	8,094
Net income	$20,611	$16,332
Share and per share information:		
Net income per share:		
Basic	$0.75	$0.79
Diluted	$0.73	$0.76
Weighted average shares outstanding:		
Basic	27,307	20,690
Diluted	28,330	21,515

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited
ASSETS		
Current assets:		
Cash and cash equivalents	$5,245	$10,374
Accounts receivable, net of allowances	119,510	107,799
Inventories	53,624	41,300
Prepaid royalties	19,721	20,118
Prepaid expenses and other current assets	6,551	6,374
Investments	2,926	0
Deferred tax asset	666	2,005
Total current assets	208,243	187,970
Fixed assets, net	5,260	4,120
Prepaid royalties	1,303	1,510
Capitalized software development costs, net	9,613	2,227
Investments	28,487	0
Investment in affiliates	0	3,955
Intangibles, net of accumulated amortization of $9,798 and $3,251,	90,505	30,857
Other assets, net	1,565	1,073
Total Assets	$344,976	$231,712
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$47,972	$71,230
Accrued expenses and other current liabilities	17,044	19,157
Lines of credit	84,605	56,048
Current portion of capital lease obligation	89	65
Notes payable, net of discount	0	31
Total current liabilities	149,710	146,531
Loan payable, net of discount	12,268	58
Capital lease obligation, net of current portion	348	20
Total liabilities	162,326	146,609
Stockholders' equity:		
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231
Additional paid-in capital	157,738	67,345
Deferred compensation	(5)	(48)
Retained earnings	39,013	18,402
Accumulated other comprehensive loss	(14,408)	(827)
Total stockholders' equity	182,650	85,103
Total Liabilities and Stockholders' Equity	$344,976	$231,712

Please click on the following tab to review preliminary analytical procedures results.

Tab 4
Presentation of Analytical Procedures Results

A member of your audit team has provided the following analytical procedures results to you. The instructions appearing in the textbox on the workpaper explain what the member has documented, the results follow.

Results of Analytical Procedures Performed During Planning

> *Analytical procedures performed during planning may be helpful in identifying the risks of material misstatement due to fraud. However, because such analytical procedures generally use data aggregated at a high level, the results of those procedures only provide a broad initial indication about whether a material misstatement of the financial statements may exist. Accordingly, the results of these procedures are considered along with the other sources of information about the fraud risk assessment.*
>
> *In planning the audit, we perform analytical procedures relating to revenue with the objective of identifying unusual or unexpected relationships involving revenue accounts or significant transactions that may be indicative of a material misstatement due to fraudulent financial reporting.*

Presented below you will find (1) a calculation of the percent change in the account from the prior year, (2) a common size income statement and a common size balance sheet, (3) a comparison of actual results to the company's budget, and (4) ratio analysis.

Financial Statements – Prior Year Comparisons

MicroTech, Inc
Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
Net Sales	$371,639	$305,932	21.48%
Cost of goods sold	239,094	215,122	11.14%
Gross Profit	132,545	90,810	45.96%
Operating Expenses:			
Selling and marketing	42,854	30,108	42.33%
General and administrative	36,409	25,236	44.27%
Research and development costs	5,668	5,263	7.70%
Depreciation and amortization	9,805	2,822	247.45%
Other, net	(587)	0	100.00%
Total operating expenses	94,149	63,429	48.43%
Income from operations	38,396	27,381	40.23%
Interest expense, net	6,069	2,910	108.56%
Equity in loss of affiliate	763	45	1595.56%
Total non-operating expenses	6,832	2,955	131.20%
Income before income taxes	31,564	24,426	29.22%
Income tax provision	10,953	8,094	35.32%
Net income	$20,611	$16,332	26.20%
Share and per share information:			
Net income per share:			
Basic	$0.75	$0.79	-5.06%
Diluted	$0.73	$0.76	-3.95%
Weighted average shares outstanding:			
Basic	27,307	20,690	31.98%
Diluted	28,330	21,515	31.68%

MicroTech, Inc
Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	2007 Audited	% Change
ASSETS			
Current assets:			
Cash and cash equivalents	$5,245	$10,374	-49.44%
Accounts receivable, net of allowances	119,510	107,799	10.86%
Inventories	53,624	41,300	29.84%
Prepaid royalties	19,721	20,118	-1.97%
Prepaid expenses and other current assets	6,551	6,374	2.78%
Investments	2,926	0	
Deferred tax asset	666	2,005	-66.78%
Total current assets	208,243	187,970	10.79%
Fixed assets, net	5,260	4,120	27.67%
Prepaid royalties	1,303	1,510	-13.71%
Capitalized software development costs, net	9,613	2,227	331.66%
Investments	28,487	0	100.00%
Investment in affiliates	0	3,955	-100.00%
Intangibles, net of accumulated amortization of $9,798 and $3,251,	90,505	30,857	193.30%
Other assets, net	1,565	1,073	45.85%
Total Assets	$344,976	$231,712	48.88%
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable	$47,972	$71,230	-32.65%
Accrued expenses and other current liabilities	17,044	19,157	-11.03%
Lines of credit	84,605	56,048	50.95%
Current portion of capital lease obligation	89	65	36.92%
Notes payable, net of discount	0	31	-100.00%
Total current liabilities	149,710	146,531	2.17%
Loan payable, net of discount	12,268	58	21051.72%
Capital lease obligation, net of current portion	348	20	1640.00%
Total liabilities	162,326	146,609	10.72%
Stockholders' equity:			
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	231	35.06%
Additional paid-in capital	157,738	67,345	134.22%
Deferred compensation	(5)	(48)	-89.58%
Retained earnings	39,013	18,402	112.00%
Accumulated other comprehensive loss	(14,408)	(827)	1642.20%
Total stockholders' equity	182,650	85,103	114.62%
Total Liabilities and Stockholders' Equity	$344,976	$231,712	48.88%

Common-Size Financial Statements

MicroTech, Inc
Common Size Income Statement
For the years ended October 31, 2008 and 2007
(in thousands)

	2008		2007	
		% of Net		% of Net
	Unaudited	Sales	Audited	Sales
Net Sales	$371,639	100.00%	$305,932	100.00%
Cost of goods sold	239,094	64.34%	215,122	70.32%
Gross Profit	132,545	35.66%	90,810	29.68%
Operating Expenses:				
Selling and marketing	42,854	11.53%	30,108	9.84%
General and administrative	36,409	9.80%	25,236	8.25%
Research and development costs	5,668	1.53%	5,263	1.72%
Depreciation and amortization	9,805	2.64%	2,822	0.92%
Other, net	(587)	-0.16%	0	0.00%
Total operating expenses	94,149	25.33%	63,429	20.73%
Income from operations	38,396	10.33%	27,381	8.95%
Interest expense, net	6,069	1.63%	2,910	0.95%
Equity in loss of affiliate	763	0.21%	45	0.01%
Total non-operating expenses	6,832	1.84%	2,955	0.97%
Income before income taxes	31,564	8.49%	24,426	7.98%
Income tax provision	10,953	2.95%	8,094	2.65%
Net income	$20,611	5.55%	$16,332	5.34%

MicroTech, Inc
Common-Size Balance Sheet
As of October 31, 2008 and 2007
(in thousands)

	2008 Unaudited	%	2007 Audited	%
ASSETS				
Current assets:				
Cash and cash equivalents	$5,245	1.52%	$10,374	4.48%
Accounts receivable, net of allowances	119,510	34.64%	107,799	46.52%
Inventories	53,624	15.54%	41,300	17.82%
Prepaid royalties	19,721	5.72%	20,118	8.68%
Prepaid expenses and other current assets	6,551	1.90%	6,374	2.75%
Investments	2,926	0.85%	0	0.00%
Deferred tax asset	666	0.19%	2,005	0.87%
Total current assets	208,243	60.36%	187,970	81.12%
Fixed assets, net	5,260	1.52%	4,120	1.78%
Prepaid royalties	1,303	0.38%	1,510	0.65%
Capitalized software development costs, net	9,613	2.79%	2,227	0.96%
Investments	28,487	8.26%	0	0.00%
Investment in affiliates	0	0.00%	3,955	1.71%
Intangibles, net of accumulated amortization of $9,798 and $3,251, respectively	90,505	26.24%	30,857	13.32%
Other assets, net	1,565	0.45%	1,073	0.46%
Total Assets	$344,976	100.00%	$231,712	100.00%
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	$47,972	13.91%	$71,230	30.74%
Accrued expenses and other current liabilities	17,044	4.94%	19,157	8.27%
Lines of credit	84,605	24.52%	56,048	24.19%
Current portion of capital lease obligation	89	0.03%	65	0.03%
Notes payable, net of discount	0	0.00%	31	0.01%
Total current liabilities	149,710	43.40%	146,531	63.24%
Loan payable, net of discount	12,268	3.56%	58	0.03%
Capital lease obligation, net of current portion	348	0.10%	20	0.01%
Total liabilities	162,326	47.05%	146,609	63.27%
Stockholders' equity:				
Common stock, $.01 par value, 31,172,866 shares and 23,085,455 shares issued and outstanding in 2008 and 2007, respectively	312	0.09%	231	0.10%
Additional paid-in capital	157,738	45.72%	67,345	29.06%
Deferred compensation	(5)	0.00%	(48)	-0.02%
Retained earnings	39,013	11.31%	18,402	7.94%
Accumulated other comprehensive loss	(14,408)	-4.18%	(827)	-0.36%
Total stockholders' equity	182,650	52.95%	85,103	36.73%
Total Liabilities and Stockholders' Equity	$344,976	100.00%	$231,712	100.00%

Financial Statements – Actual vs. Budget

MicroTech, Inc
Unaudited Income Statement - Actual vs. Budget Analysis
For the year ended October 31, 2008
(in thousands)

	Actual	Budget	$ Variance	% Variance
Net Sales	$371,639	$376,000	(4,361)	-1.16%
Cost of goods sold	239,094	240,500	(1,406)	-0.58%
Gross Profit	132,545	135,500	(2,955)	-2.18%
Operating Expenses:				
Selling and marketing	42,854	43,000	(146)	-0.34%
General and administrative	36,409	36,800	(391)	-1.06%
Research and development costs	5,668	5,600	68	1.21%
Depreciation and amortization	9,805	10,000	(195)	-1.95%
Other, net	(587)	(600)	13	-2.17%
Total operating expenses	94,149	94,800	(651)	-0.69%
Income from operations	38,396	40,700	(2,304)	-5.66%
Interest expense, net	6,069	6,100	(31)	-0.51%
Equity in loss of affiliate	763	750	13	1.73%
Total non-operating expenses	6,832	6,850	(18)	-0.26%
Income before income taxes	31,564	33,850	(2,286)	-6.75%
Income tax provision	10,953	12,800	(1,847)	-14.43%
Net income	$20,611	$21,050	(439)	-2.08%
Share and per share information:				
Net income per share:				
Basic	$0.75	$0.77	($0.02)	-2.60%
Diluted	$0.73	$0.74	($0.02)	-2.70%
Weighted average shares outstanding:				
Basic	27,307	27,307		
Diluted	28,330	28,330		

Ratio Analysis Results

	2008	2007
Liquidity:		
Current	1.39	1.28
Quick	0.83	0.81
Solvency:		
Debt to Assets	0.47	0.63
Long-term Debt to Equity	0.07	0.00
Activity:		
Inventory Turnover	4.46	5.21
Age of Inventory (days)	80.74	69.11
Accounts Receivable Turnover	3.11	2.84
Age of Accounts Receivable (days)	115.77	126.85
Profitability:		
Gross Margin	35.66%	29.68%
Profit Margin on Sales	5.55%	5.34%
Return on Total Assets	7.73%	8.30%
Operating Profit Margin	10.33%	8.95%
Pretax Margin	8.49%	7.98%
Sales:		
Sales to Accounts Receivable	3.11	2.84
Sales to Current Assets	1.78	1.63
Sales to Accounts Payable	7.75	4.29
Sales to Net Income	18.03	18.73
Sales to Total Assets	1.08	1.32

Equations:
Current ratio: current assets / current liabilities
Quick ratio: (cash and cash equivalents + net accounts receivable) / current liabilities
Debt to assets: total debt / total assets
Long-term debt to equity: long-term debt / stockholders’ equity
Inventory turnover: cost of sales / inventory
Age of inventory: 360 days / inventory turnover
Accounts receivable turnover: sales / accounts receivable
Age of accounts receivable: 360 days / accounts receivable turnover
Gross margin: total gross margin (sales – cost of goods sold) / sales
Profit margin on sales: net income / total revenues
Return on total assets: (net income + interest expense) / total assets
Operating profit margin: income from operations / sales
Pretax margin: net profit before taxes / sales

Sales to accounts receivable: sales / accounts receivable
Sales to current assets: sales / current assets
Sales to accounts payable: sales / accounts payable
Sales to net income: sales / net income
Sales to total assets: sales / total assets

Please click on the following tab to review the preliminary fraud risk assessment.

Tab 5
Presentation of Fraud Risk Assessment Results

A member of your audit team has provided you with the following excerpt from the Fraud Risk Assessment workpaper explaining selected risk assessment results. The instructions appearing in the textbox on the workpaper explain what the member has documented. The results of the audit team member's work appear in the table. Not all risk assessment conclusions include a remark.

Identifying Potential Risks of Material Misstatement Due To Fraud
Description and Characteristics of Fraud

Two types of misstatements are relevant to our consideration of fraud: 1) misstatements arising from fraudulent financial reporting; and 2) misstatements arising from misappropriation of assets.

Three conditions generally are present when fraud occurs: (1) management or other employees have an incentive or are under pressure to commit fraud; (2) circumstances exist —for example, the absence of controls, ineffective controls or the ability of management to override controls— that provide an opportunity for a fraud to be perpetrated; and (3) those involved are able to rationalize a fraudulent act as being consistent with their personal code of ethics. Some individuals possess an attitude, character, or set of ethical values that allow them to knowingly and intentionally commit a dishonest act.

We expect that one or more risks of material misstatement due to fraud will be identified for most engagements.

Fraud Risk Factors Associated With Fraudulent Financial Reporting

Identifying one or more fraud risk factors does not necessarily mean that internal control at the entity level is ineffective.

A. Incentives / Pressure to commit fraud

	Risk	Yes / No / N/A	Remarks
1.	Financial stability or profitability is threatened by economic, industry, or operating conditions, such as (or as indicated by):	Results are mixed	Please see results for sub-factors below.
	a. High degree of competition or market saturation.	Yes	While MicroTech faces a high degree of competition, the market for new games (i.e. video games) is growing.
	b. High vulnerability to rapid changes, such as changes in technology, or product obsolescence.	Yes	
	c. Significant declines in customer demand and increasing business	No	The market for video games has expanded to include customers who do not fit the

	failures in either the industry or overall economy.		traditional gaming demographic; the new market includes both females and an older audience.
	d. New accounting, statutory, or regulatory requirements that could impair the institution's profitability, financial stability or regulatory capital ratios.	No	
2.	Information available indicates that management or the board of directors' personal financial situation is threatened by the entity's financial performance arising from the following:	Results are mixed	Please see results for sub-factors (a) and (b) below.
	a. Significant portions of their compensation (e.g., bonuses, stock options, and earn out arrangements) being contingent upon achieving aggressive targets for stock price, operation results, financial position, or cash flow.	Yes	The Chief Operating Officer and Chief Financial Officer may earn a quarterly bonus contingent on MicroTech increasing its net income in each period.
	b. The institution is experiencing a poor or deteriorating financial condition and management has personally guaranteed the debts of the institution.	No	

B. Opportunity to commit fraud

	Risk	Yes / No / N/A	Remarks
3.	The nature of the institution's industry or operations provides opportunities to engage in fraudulent financial reporting that can arise from the following:	Results are mixed	
	a. Assets, liabilities, revenues or expenses based on significant estimates that involve subjective judgments or uncertainties that are difficult to corroborate or that could significantly change in the near term in a way that might be financially disruptive to the institution.	No	MicroTech does have to estimate the amount of return reserve to book for each sale; however, the company does so using a method that includes considering historical return amounts and trends.
	b. Significant accounts or transactions with little or no supporting documentation or "audit trail"	No	
	c. The institution engages in material,	Yes	MicroTech fulfilled the largest sale of the

	nonrecurring transactions that occur near the end of the reporting period, comprise a substantial portion of earnings, or appear to be attempts to recognize large short-term gains.		year on the last day of the fiscal year. The sale was to a repeat customer.
4.	There is ineffective monitoring of management as a result of the following:	No	
	a. Domination of management by a single person or small group (in a nonowner managed business) without compensating controls.	No	
	b. Ineffective board of directors or audit committee oversight over the financial reporting process and internal control.	No	
	c. The board, audit committee, or management lacks sufficient expertise and industry experience, especially in new lines of business the institution is entering.	No	
5.	There is a complex or unstable organizational structure, as evidenced by the following:	No	
	a. High turnover of senior management, counsel, or board members.	No	Personnel have remained relatively constant.
	b. Significant operations conducted in remote locations that are difficult to monitor effectively.	No	
6.	Internal control components are deficient as a result of the following:	No	
	a. Inadequate monitoring of controls, including automated controls and controls over the financial reporting process.	No	
	b. Deficiencies in segregation of duties or independent checks. For example:	No	
	1. Vacant staff positions remain unfilled for extended periods	No	
	2. Failure to establish adequate segregation of duties between approval transactions and disbursement of funds	No	
	c. Deficiencies in accounting, financial reporting, or management reporting processes.	No	
	d. High turnover rates or employment of	No	

	ineffective accounting, internal audit, or information technology staff.		

C. Attitudes / Rationalizations

	Risk	Yes / No / N/A	Remarks
7.	Management has ineffective communication, implementation, support, or enforcement of the institution's values or ethical standards by management or the communication of inappropriate values or ethical standards.	No	
8.	Known history of violations of laws and regulations, or claims against the entity, its senior management, or board members alleging fraud or violations of laws and regulations.	No	There have been no allegations of fraud against the entity, its senior management, or board members.
9.	Management failing to correct known significant deficiencies or material weaknesses on a timely basis.	No	
10.	Recurring attempts by management to justify marginal or inappropriate accounting on the basis of materiality.	No	
11.	The following accounting and financial reporting considerations:	No	
	a. Inability to prepare accurate and timely financial reports, including interim reports.	No	Financial reports, including interim reports, have been prepared in a timely manner.
	b. Lack of timely and appropriate documentation for transactions	No	Transactions have been recorded in a timely manner and MicroTech has retained appropriate supporting documentation for transactions.
12.	The relationship between management and the engagement team is strained, as exhibited by the following:	No	
	a. Frequent disputes with the engagement team or predecessor auditor on accounting, auditing, or reporting matters.	No	We have conducted audits of MicroTech for the past several years and have no documented disputes with the client.
	b. Unreasonable demands on the engagement team, such as unreasonable time constraints regarding the completion of the audit or the issuance of the auditor's report.	No	

	c. Formal or informal restrictions on the engagement team that inappropriately limit access to people or information or the ability to communicate effectively with the board of directors or audit committee.	No	The audit team has not been restricted in their access to personnel or information.
	d. Inability or unwillingness by management to provide requested information in a timely manner to the engagement team.	No	Management has been responsive to requests made by the audit team.

Please click on the following tab to complete Evaluation Task 1.

Tab 6
Evaluation Task 1
Based on your review of the materials, what is your judgment of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 7

Presentation of Client Inquiry Dialogue with CFO & Divisional Controller

Transcript of discussion with:

Name(s):	Title(s):
Tom Johnson	Chief Financial Officer

The audit team has spoken several times with Tom Johnson, the Chief Financial Officer. He has direct responsibility for the financial statements. He has provided information from which the audit team has gained an understanding of the company and the company's plans for the future. He has made himself available when questions have arisen.

Please read the dialogue reported below of the client inquiry with Tom Johnson.

Dialogue
"You mentioned you wanted to talk about some things that happened at MicroTech during the past year. We have worked hard this year. We are in a pretty competitive market, but we have been developing some great new games. As I mentioned before, we definitely face competition in the marketplace. To address this, we are continuously developing new video games. This past year we released several big hits and we have plans to follow these up with a strong line-up of games next year also. The nice thing is that our target market is broadening. Interactive software games have become an increasingly mainstream entertainment choice for a maturing, technologically sophisticated audience. The average age of a gamer is now about 28 years old and our target market now includes women also. Further, we expect that releasing some budget software games will help us grow our business. We see the opportunity to provide inexpensive entertainment and we are taking it. That is how we grow our sales. Overall, we had a good year this year. We exceeded our sales for the prior year. Our increase in net sales reflects the expansion of our global publishing and distribution businesses. Our cost of sales increased because we expanded our scope of operations and because of our revenue growth. Speaking of sales...we booked our largest sale ever this year. On October 31, we shipped 230,000 games to one of our best customers. Included in that sale were some of our new games that we think are going to be received well by the gamers in the market. Hopefully we can keep our momentum going. I and several of our other execs have some incentive to keep the momentum up. As you probably know, my quarterly bonus is contingent on increasing net income each quarter. Several of our executives have such employment agreements. It is fairly common, and is how we tie our incentives to performance. We want this company to do well, so we have tried to structure our human resources policies to align with our growth strategy. We have supported our growth strategy through the acquisition of several companies. We amortized goodwill associated with the acquisition of these companies, so our depreciation and amortization expense increased this year.

So that is a bit about the company. I know that we will continue to grow our sales, develop new products and remain a leader in the market. I am confident that we can keep growing this company. If you have anymore questions, please just ask."

Transcript of discussion with:

Name(s):	Title(s):
Larry Smith	Divisional Controller

Larry Smith is the operating division's controller for MicroTech. He has a direct role in preparing the financial statements. The audit team has decided that you will speak with Larry because, as the divisional controller, he has a good understanding of some of the operations of the business.

Please read the dialogue reported below of the client inquiry with Larry Smith.

Dialogue
"Tom said that you might want to speak with me. Just to give you a picture of my role in the company, my duties include preparing the annual business plan and departmental budgets, maintaining and updating the inventory and costing systems, preparing weekly and monthly financial reports and communicating the results to department managers and support departments. I work closely with sales and marketing on overall pricing/financial strategies. I guess you could say I am a link between our upper management and our operations personnel. As the controller of the operating division, I can answer your questions about everything from our warehouse procedures to our budgeting processes. I did hear that you wanted to talk with me about our marketplace and some of our sales. We typically have a pretty good idea which games will be our real blockbusters, but sometimes the market for a specific game can be somewhat difficult to predict. In this industry, because of the uncertainty factor of which games will be a real hit with our audiences, we sometimes need to offer our customers the right to return what doesn't sell. It is a fairly common practice for video game distributors. When we sell the product, we book the sale net of an estimated return amount and book the reserve at the time of the sale. We have the reserve calculation down to a science now. It is based on historic return rates. We don't offer this with every sale, but we have to on some of our new game releases. I heard that you wanted to know about some of our larger sales completed this year. Our biggest sale of the year was to D.C. Videos, our sales team managed to arrange that one just before year end. Actually, the shipment containing 230,000 video games went out on October 31. We ship to D.C. and their affiliates on a regular basis, but that sale was a great one to land. We had been working on that sale for a while. The sale shipped late in the year because things got hung up a bit on the customer's side. So we are happy to have that one wrapped up. We are really focusing on setting ourselves up for a good year next year also. We have been working hard to generate good buzz around some of our new games. Selling and marketing expenses increased because of our increased marketing costs associated with establishing publishing programs and brand names. We want the games to be well known and our company to be a recognizable brand.

Let me know if you have any more questions as you go through the audit. I'd be happy to help."

Please click on the following tab to complete Evaluation Task 2.

Tab 8
Evaluation Task 2
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's CFO and Divisional Controller.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Save and Continue

Tab 9

Presentation of Client Inquiry Dialogue with Other Client Personnel

Transcript of discussion with:

Name(s):	**Title(s):**
Phil Jones	Warehouse Manager

Phil Jones is the warehouse manager for MicroTech. He does not have a direct role in preparing the financial statements. Phil has limited experience in warehouse operations and has been the warehouse manager for MicroTech for two years. The audit team has decided that you will speak with Phil because, as the warehouse manager, he has a good understanding of the operations of the business.

Please read the dialogue reported below of the client inquiry with Phil Jones.

Dialogue
"You mentioned that you wanted to talk with me about our shipping processes. Well, let me give you an overview of how we handle things down here in the warehouse. Typically, we receive the sales order on one of our terminals in the warehouse. Our guys will put all of the computers that are going to be shipped together in a pile separate from the other inventory. We have these handheld scanners so we can scan the bar code on each computer that we are putting in the pile so we know which ones are going out. It updates our inventory system for us too. These handhelds have really helped us cut back on keying errors since the workers don't have to manually type the barcodes in anymore. Anyway, once the games that are going to be shipped have been scanned into the system, we then go ahead and box them up and get them ready for shipment. We fill out a shipping document that includes what titles we are sending, how many, and where they are going. Our shipments vary in size by customer. Some of our customers only order a few titles at a time. Others send in some pretty big orders. Tom said that you may want to know about some of the sales orders we have fulfilled. We shipped out three pretty large orders on October 31. That was a hectic day, but we made it happen. We had three major shipments go out that day. One of the shipments contained 230,000 video games. That was our largest shipment this year. The shipment went out to D.C. Videos. We ship to D.C. and their affiliates on a regular basis. When we receive or ship orders, we record the titles and quantities of each game received or shipped out. The process is tedious, but helps us run a tight ship. Well, that is pretty much what goes on around here. I've got a good group of workers down here and we have been doing really well at keeping up with the orders. Let me know if you want a tour of the warehouse sometime. We are pretty pleased with how we run this place."

Please click on the following tab to complete Evaluation Task 3.

Tab 10
Evaluation Task 3
What is your judgment of the likelihood of the following risks relevant to this client? Please pick one number of the scale below each item that corresponds to your judgment.

FRAUD RISK

LIKELIHOOD OF RISK: How likely is it that the risk of material misstatement due to fraud will result in a material misstatement in the financial statements?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

SIGNIFICANCE OF RISK: How significant is the risk that fraud would be of a magnitude that could result in a possible material misstatement of the financial statements?

Highly Insignificant					Neutral					Highly Significant
0	1	2	3	4	5	6	7	8	9	10

PERVASIVENESS OF RISK: How pervasive is the potential risk of material misstatement due to fraud? (Extremely pervasive risk would affect the financial statements as a whole and may not be limited to one assertion, account or class of transactions. Pervasiveness would decrease as the fraud may be limited to a particular assertion, account, class of transactions, or not exist at all.)

Extremely Non-Pervasive					Neutral					Extremely Pervasive
0	1	2	3	4	5	6	7	8	9	10

Please list the evidence that you considered when arriving at your fraud risk judgment after reading the dialogue of the client inquiry with MicroTech's Warehouse Manager and what audit procedure(s) you would like to complete next.

[TEXT BOX]

CLIENT BUSINESS RISK
Risk that this entity's business objectives will not be attained as a result of the external and internal factors, pressures, and forces brought to bear on the entity and, ultimately, the risk associated with the entity's survival and profitability.

Extremely Low					Neutral					Extremely High
0	1	2	3	4	5	6	7	8	9	10

Based on the information provided, please indicate your beliefs about Phil Jones, Warehouse Manager (WHM).

Please rate the level of experience of Phil Jones, the warehouse manager.

Low Level of Experience					Neutral					High Level of Experience
0	1	2	3	4	5	6	7	8	9	10

The information provided by *Phil Jones*, warehouse manager, influenced my fraud risk assessment judgment.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe that *Phil Jones*, WHM, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Phil Jones*, WHM is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Phil Jones*, WHM, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

Please recall that you reviewed conversations with CFO Tom Johnson and Divisional Controller Larry Smith earlier. Please provide an additional assessment of Tom Johnson and Larry Smith.

I believe that *Tom Johnson*, CFO, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Tom Johnson*, CFO, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Tom Johnson*, CFO, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

I believe that *Larry Smith*, divisional controller, is trustworthy.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

I believe the information provided by *Larry Smith*, divisional controller, is reliable.

Strongly Disagree					Neutral					Strongly Agree
0	1	2	3	4	5	6	7	8	9	10

How likely is it that information provided by *Larry Smith*, divisional controller, was not truthful?

Extremely unlikely					Neutral					Extremely likely
0	1	2	3	4	5	6	7	8	9	10

In light of the evidence gathered, do you have any comments or concerns that you want to raise with members of the engagement team?

[TEXT BOX]

Save and Continue

Tab 11
General Case Questions

Please complete the following questions.

Were there any inconsistencies between company personnel directly involved with the financial reporting process (e.g. the CFO and Divisional Controller) and operating personnel (e.g. the Warehouse Manager)?

☐ Yes ☐ No

Were you able to determine the actual company on which the case materials were based?

☐ Yes ☐ No

If you think so, please identify the company.

[TEXT BOX]

Demographic Information

Please complete the following questions.

What is your gender?

☐ Female ☐ Male

Please provide the name of your current employer.

[TEXT BOX]

Please provide your current job title (e.g. senior, manager, etc.).

[TEXT BOX]

How long have you worked as an auditor?

[YEARS BOX] [MONTHS BOX]

Have you ever worked on an audit where management fraud was detected?

☐ Yes ☐ No

If you answered yes to the question above, was an adverse opinion actually issued on one or more of these engagements?

☐ Yes ☐ No

Please enter your email address if you would like to be entered into the prize drawing (your email will not be used for any other purpose):

[TEXT BOX]

If you are willing to be contacted about the study after completing the case, please provide your contact information below.

[TEXT BOX]

[Submit!]

APPENDIX E

Client Dialogues & Descriptions

Client Personnel	Dialogue
Tom Johnson, Chief Financial Officer	"You mentioned you wanted to talk about some things that happened at MicroTech during the past year. We have worked hard this year. We are in a pretty competitive market, but we have been developing some great new games. As I mentioned before, we definitely face competition in the marketplace. To address this, we are continuously developing new video games. This past year we released several big hits and we have plans to follow these up with a strong line-up of games next year also. The nice thing is that our target market is broadening. Interactive software games have become an increasingly mainstream entertainment choice for a maturing, technologically sophisticated audience. The average age of a gamer is now about 28 years old and our target market now includes women also. Further, we expect that releasing some budget software games will help us grow our business. We see the opportunity to provide inexpensive entertainment and we are taking it. That is how we grow our sales. Overall, we had a good year this year. We exceeded our sales for the prior year. Our increase in net sales reflects the expansion of our global publishing and distribution businesses. Our cost of sales increased because we expanded our scope of operations and because of our revenue growth. Speaking of sales...we booked our largest sale ever this year. On October 31, we shipped 230,000 games to one of our best customers. Included in that sale were some of our new games that we think are going to be received well by the gamers in the market. Hopefully we can keep our momentum going. I and several of our other execs have some incentive to keep the momentum up. As you probably know, my quarterly bonus is contingent on increasing net income each quarter. Several of our executives have such employment agreements. It is fairly common, and is how we tie our incentives to performance. We want this company to do well, so we have tried to structure our human resources policies to align with our growth strategy. We have supported our growth strategy through the acquisition of several companies. We amortized goodwill associated with the acquisition of these companies, so our depreciation and amortization expense increased this year. So that is a bit about the company. I know that we will continue to grow our sales, develop new products and remain a leader in the market. I am confident that we can keep growing this company. If you have anymore questions, please just ask."
Larry Smith, Divisional Controller	"Tom said that you might want to speak with me. Just to give you a picture of my role in the company, my duties include preparing the annual business plan and departmental budgets, maintaining and updating the inventory and costing systems, preparing weekly and monthly financial reports and communicating the results to department managers and support departments. I work closely with sales and marketing on overall pricing/financial strategies. I guess you could say I am a link between our upper management and our operations personnel.

	As the controller of the operating division, I can answer your questions about everything from our warehouse procedures to our budgeting processes. I did hear that you wanted to talk with me about our marketplace and some of our sales. We typically have a pretty good idea which games will be our real blockbusters, but sometimes the market for a specific game can be somewhat difficult to predict. In this industry, because of the uncertainty factor of which games will be a real hit with our audiences, we sometimes need to offer our customers the right to return what doesn't sell. It is a fairly common practice for video game distributors. When we sell the product, we book the sale net of an estimated return amount and book the reserve at the time of the sale. We have the reserve calculation down to a science now. It is based on historic return rates. We don't offer this with every sale, but we have to on some of our new game releases. I heard that you wanted to know about some of our larger sales completed this year. Our biggest sale of the year was to D.C. Videos, our sales team managed to arrange that one just before year end. Actually, the shipment containing 230,000 video games went out on October 31. We ship to D.C. and their affiliates on a regular basis, but that sale was a great one to land. We had been working on that sale for a while. The sale shipped late in the year because things got hung up a bit on the customer's side. So we are happy to have that one wrapped up. We are really focusing on setting ourselves up for a good year next year also. We have been working hard to generate good buzz around some of our new games. Selling and marketing expenses increased because of our increased marketing costs associated with establishing publishing programs and brand names. We want the games to be well known and our company to be a recognizable brand. Let me know if you have any more questions as you go through the audit. I'd be happy to help."
Phil Jones, Warehouse Manager, Fraud Case	"You mentioned that you wanted to talk with me about our shipping processes. Well, let me give you an overview of how we handle things down here in the warehouse. Typically, we receive the sales order on one of our terminals in the warehouse. Our guys will put all of the games that are going to be shipped together in a pile separate from the other inventory. We have these handheld scanners so we can scan the bar code on each game that we are putting in the pile so we know which ones are going out. It updates our inventory system for us too. These handhelds have really helped us cut back on keying errors since the workers don't have to manually type the barcodes in anymore. Anyway, once the games that are going to be shipped have been scanned into the system, we then go ahead and box them up and get them ready for shipment. We fill out a shipping document that includes what titles we are sending, how many, and where they are going. Our shipments vary in size by customer. Some of our customers only order a few titles at a time. Others send in some pretty big orders. Tom said that you may want to know about some of the sales orders we have fulfilled. We shipped out three pretty large orders on October 31. That was a hectic day, but we made it happen. One of the shipments contained 230,000 video games. That was our largest shipment this year. The shipment went out to D.C. Videos. We ship to D.C. and their affiliates on a regular basis. Actually, we also receive games from one of their affiliates. About a month after

	we sent out that large shipment, we received a shipment containing the same number of games as we had shipped out earlier. Typically we have a purchase order number waiting to be matched up with the shipment, but on this one, we had to call the purchasing manager and he said he was in the process of creating the PO. He said that Tom, our CFO, and Larry, our divisional controller, called and said to go ahead and create a PO and send it down to us as soon as possible. From what I heard, it was some deal Tom had worked out directly with the vendor. Oh, one more thing, typically we record the titles and quantities of each game received on the receiving report, but on this one Tom instructed us to record the receipt as "assorted product". I only bring it up because you mentioned that you wanted to know about any exceptions to our receiving process that may have taken place this year. That is really the only one that I can think of, everything else went pretty smoothly. Well, that is pretty much what goes on around here. I've got a good group of workers down here and we have been doing really well at keeping up with the orders. Let me know if you want a tour of the warehouse sometime. We are pretty pleased with how we run this place."
Phil Jones, Warehouse Manager, No Fraud Case	"You mentioned that you wanted to talk with me about our shipping processes. Well, let me give you an overview of how we handle things down here in the warehouse. Typically, we receive the sales order on one of our terminals in the warehouse. Our guys will put all of the computers that are going to be shipped together in a pile separate from the other inventory. We have these handheld scanners so we can scan the bar code on each computer that we are putting in the pile so we know which ones are going out. It updates our inventory system for us too. These handhelds have really helped us cut back on keying errors since the workers don't have to manually type the barcodes in anymore. Anyway, once the games that are going to be shipped have been scanned into the system, we then go ahead and box them up and get them ready for shipment. We fill out a shipping document that includes what titles we are sending, how many, and where they are going. Our shipments vary in size by customer. Some of our customers only order a few titles at a time. Others send in some pretty big orders. Tom said that you may want to know about some of the sales orders we have fulfilled. We shipped out three pretty large orders on October 31. That was a hectic day, but we made it happen. We had three major shipments go out that day. One of the shipments contained 230,000 video games. That was our largest shipment this year. The shipment went out to D.C. Videos. We ship to D.C. and their affiliates on a regular basis. When we receive or ship orders, we record the titles and quantities of each game received or shipped out. The process is tedious, but helps us run a tight ship. Well, that is pretty much what goes on around here. I've got a good group of workers down here and we have been doing really well at keeping up with the orders. Let me know if you want a tour of the warehouse sometime. We are pretty pleased with how we run this place."

Client Personnel	Description
Tom Johnson,	The audit team has spoken several times with Tom Johnson, the Chief Financial Officer. He has direct responsibility for the financial statements. He has provided

Chief Financial Officer	information from which the audit team has gained an understanding of the company and the company's plans for the future. He has made himself available when questions have arisen.
Larry Smith, Divisional Controller	Larry Smith is the operating division's controller for MicroTech. He has a direct role in preparing the financial statements. The audit team has decided that you will speak with Larry because, as the divisional controller, he has a good understanding of some of the operations of the business.
Phil Jones, Warehouse Manager, Higher Level of Experience	Phil Jones is the warehouse manager for MicroTech. He does not have a direct role in preparing the financial statements. Phil has extensive experience in warehouse operations and has been the warehouse manager for MicroTech for over 12 years. The audit team has decided that you will speak with Phil because, as the warehouse manager, he has a good understanding of the operations of the business.
Phil Jones, Warehouse Manager, Lower Level of Experience	Phil Jones is the warehouse manager for MicroTech. He does not have a direct role in preparing the financial statements. Phil has limited experience in warehouse operations and has been the warehouse manager for MicroTech for two years. The audit team has decided that you will speak with Phil because, as the warehouse manager, he has a good understanding of the operations of the business.

APPENDIX F
IRB APPROVAL LETTER

VirginiaTech

Office of Research Compliance
Institutional Review Board
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, Virginia 24061
540/231-4991 Fax 540/231-0959
e-mail moored@vt.edu
www.irb.vt.edu
FWA00000572(expires 1/20/2010)
IRB # is IRB00000667

DATE: May 1, 2009

MEMORANDUM

TO: Sudip Bhattacharjee
Meghann Abell

FROM: David M. Moore

SUBJECT: **IRB Exempt Approval:** "Assessing Fraud Risk, Truthfulness, and Credibility" , IRB # 09-453

I have reviewed your request to the IRB for exemption for the above referenced project. The research falls within the exempt status. Approval is granted effective as of April 30, 2009.

As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changes in the research protocol. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.

2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

cc: File

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