

**THE EFFECTS OF AUDITORS' TRUST IN CLIENT MANAGEMENT  
ON AUDITORS' JUDGMENTS**

William A. Kerler III

Dissertation submitted to the Faculty of the  
Virginia Polytechnic Institute and State University  
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy  
in  
General Business  
With a Major in Accounting

Larry N. Killough, Chair

Robert M. Brown

John A. Brozovsky

John J. Donovan

John J. Maher

June 27, 2005

Blacksburg, Virginia

Keywords: Auditor Trust, Independence, Objectivity, Fraud Risk, Ethics, Client Importance

Copyright 2005, William A. Kerler III

# **THE EFFECTS OF AUDITORS' TRUST IN CLIENT MANAGEMENT ON AUDITORS' JUDGMENTS**

William A. Kerler III  
(ABSTRACT)

This dissertation presents the results of three research studies investigating the role trust plays in an auditor's decisions. The first study examines whether auditors develop trust in a client's management after working with the client during prior audit engagements. The results indicate that auditors have higher trust in the client's management after a positive, overall satisfying experience working with the client compared to a negative, overall unsatisfying experience. The first study also investigates whether auditors' trust in a client affects their audit decisions. The results show a negative relationship between auditors' trust and their fraud risk assessment. Specifically, lower levels of trust are associated with higher levels of risk, and vice versa. Together, the results suggest that auditors may indeed develop trust in a client's management and this trust may affect their audit decisions.

The second study examines whether Certified Public Accountants' (CPAs) level of moral reasoning affects their decision to trust a client's management and the extent to which to trust them. The results show that CPAs with relatively higher levels of moral reasoning have less trust in the client's management than CPAs with relatively lower levels of moral reasoning. The findings indicate that an auditor's decision to trust a client's management is, at least in part, an ethical judgment. Also, because the decision is an ethical one, the findings suggest that trust beyond some threshold would be considered unethical.

The third study extends the results of the first study by simultaneously examining how an auditor's trust and the financial importance of the client affect the auditor's decision to accept the client's preferred method of recognizing revenue. The results indicate that auditors' trust in the client's management is positively related to their commitment to the goal of supporting the client's preferred reporting methods (goal commitment), which in turn is positively related to the auditors' assessments of the acceptability of the client's methods for reporting purposes. The

importance of the client did not affect auditors' goal commitment or their acceptability assessments. The findings suggest that auditors with higher levels of trust may be more likely to accept the client's preferred method of financial reporting.

Overall, these results add to our knowledge of audit judgment and decision-making by providing evidence that auditors do indeed develop trust in a client's management; that the decision and extent to trust the client is in part an ethical judgment; and that auditors' trust may affect their audit decisions. This dissertation highlights the important role that an auditor's trust plays in his or her audit decisions.

## **DEDICATION**

This dissertation is dedicated to my parents Bill and Debbie, my sister Erin, my sister and brother-in-law Kim and Chris, and my nieces Lexie and Allie. Thank you all for your love and support. A special dedication is reserved for my parents. Thank you for your love, wisdom, support, and patience through all my years.

## ACKNOWLEDGEMENTS

First, I would like to acknowledge my dissertation committee, Larry N. Killough (Chair), Robert M. Brown, John A. Brozovsky, John J. Donovan, and John J. Maher, for their guidance and support during the completion of my dissertation. I am especially indebted to Dr. Killough for his guidance and encouragement throughout my doctoral studies. He has been a tremendous mentor and friend. I would also like to thank Dr. Brown and Dr. Wayne Leininger for their guidance and financial support.

Second, I would like to acknowledge the support from my fellow Ph.D. students, Chris Allport, Duane Brandon, Lemuria Carter, Aaron Crabtree, Gerald DeBusk, Damon Fleming, Scott Fleming, and Christian Schaupp. While their encouragement and advice have helped me throughout my doctoral studies, I am most grateful for their friendship.

Third, I would like to thank Phyllis Neece, Arnita Perfater, and Anna Hawthorne for all their assistance throughout my doctoral studies. I will always be thankful for their support and patience.

Lastly, I would like to thank John and Mary Jane Peterson for their support of my doctoral studies in the form of the John E. Peterson Jr. and Mary Jane Peterson fellowship in accounting.

## TABLE OF CONTENTS

<b>DEDICATION</b> .....	<b>iv</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>v</b>
<b>TABLE OF CONTENTS</b> .....	<b>vi</b>
<b>LIST OF FIGURES</b> .....	<b>viii</b>
<b>LIST OF TABLES</b> .....	<b>ix</b>
<b>CHAPTER 1: Introduction</b> .....	<b>1</b>
REFERENCES .....	5
<b>CHAPTER 2: Trusting Client’s Management: Do Auditors Develop Trust and Does     It Affect Fraud Risk Assessments?</b> .....	<b>6</b>
INTRODUCTION .....	6
PRIOR LITERATURE .....	8
Trust .....	8
Perceived Risk of Management Fraud .....	9
METHODS .....	10
Sample.....	10
Instrument .....	11
Development of Trust Scale.....	13
RESULTS .....	14
Descriptive Statistics and Correlations .....	14
Manipulation Checks .....	15
Main Analysis .....	16
Supplemental Analysis.....	17
DISCUSSION .....	18
REFERENCES .....	20
FIGURES AND TABLES .....	23
<b>CHAPTER 3: Does Moral Reasoning Affect Auditors’ Trust in a Client’s     Management?</b> .....	<b>30</b>
INTRODUCTION .....	30
PRIOR LITERATURE .....	31
Trust .....	31
Moral Reasoning.....	32
METHODS .....	33
Variables .....	33
The Defining Issues Test .....	33
Trust .....	34
Sample.....	34
Instrument .....	35
RESULTS .....	36
Preliminary Analysis.....	36
Main Analysis .....	37
Supplemental Analysis.....	38
DISCUSSION .....	39
REFERENCES .....	40
FIGURES AND TABLES .....	42

<b>CHAPTER 4: The Effects of Trust, Client Importance, and Goal Commitment on Auditors' Acceptance of Client-Preferred Methods</b> .....	<b>46</b>
INTRODUCTION .....	46
PRIOR LITERATURE .....	48
Framework of Impaired Independence .....	48
Commitment to Directional Goals .....	50
Incentives .....	51
Financial Importance of the Client (Client Importance).....	51
Trust .....	52
Audit Decision .....	53
METHODS .....	54
Participants.....	54
Experimental Case and Procedures.....	55
Variables .....	56
Client importance.....	56
Trust .....	57
Goal commitment.....	58
Acceptability .....	58
Other variables .....	59
RESULTS .....	59
Preliminary Analysis.....	59
Main Analysis .....	61
Supplemental Analysis.....	63
DISCUSSION .....	63
REFERENCES .....	66
FIGURES AND TABLES .....	70
<b>CHAPTER 5: Summary, Conclusions, and Suggestions for Future Research</b> .....	<b>77</b>
SUMMARY AND CONCLUSIONS .....	77
SUGGESTIONS FOR FUTURE RESEARCH .....	79
REFERENCES .....	81
<b>APPENDICES</b> .....	<b>82</b>
APPENDIX A: Case Material for Chapter 2 .....	82
APPENDIX B: Case Material for Chapter 3 .....	89
APPENDIX C: Case Material for Chapter 4 .....	96
<b>VITA</b> .....	<b>110</b>

## LIST OF FIGURES

<b>Figure 4-1: Summary of Hypotheses for the Effects of Incentives on Auditors’ Judgment-Based Decisions.....</b>	<b>70</b>
<b>Figure 4-2: Estimated Model of the Effects of Incentives on Auditors’ Acceptability Decisions.....</b>	<b>71</b>
<b>Figure 4-3: Estimated Model of the Effects of Trust on Auditors’ Acceptability Decisions.....</b>	<b>72</b>
<b>Figure 4-4: Alternative Model Predicting Goal Commitment Partially Mediates the Effects of Incentives on Auditors’ Acceptability Decisions.....</b>	<b>73</b>



## LIST OF TABLES

<b>Table 2-1: Sample Descriptive Statistics.....</b>	<b>23</b>
<b>Table 2-2: Prior Audit Engagement Manipulations.....</b>	<b>24</b>
<b>Table 2-3: Existing Scales Utilized to Develop Measure of Auditor’s Trust.....</b>	<b>25</b>
<b>Table 2-4: Trust Scale Items.....</b>	<b>26</b>
<b>Table 2-5: Descriptive Statistics of Measured Variables.....</b>	<b>27</b>
<b>Table 2-6: Correlation Matrix of Measured and Manipulated Variables.....</b>	<b>28</b>
<b>Table 2-7: Regression Results.....</b>	<b>29</b>
<b>Table 3-1: Kohlberg’s Six Stage Model of Moral Reasoning.....</b>	<b>42</b>
<b>Table 3-2: Trust Scale Items.....</b>	<b>43</b>
<b>Table 3-3: Prior Audit Engagement Manipulations.....</b>	<b>44</b>
<b>Table 3-4: ANOVA Results for the Effect of Moral Reasoning on Auditors’ Trust.....</b>	<b>45</b>
<b>Table 4-1: Sample Descriptive Statistics.....</b>	<b>74</b>
<b>Table 4-2: Measure of Trust – Kerler and Killough (2005).....</b>	<b>75</b>
<b>Table 4-3: Measure of Goal Commitment – Klein et al. (2001).....</b>	<b>76</b>

## **CHAPTER 1:**

### **Introduction**

This dissertation investigates the role an auditor's trust plays in his or her audit decisions. The primary role of an auditor is to provide an independent and objective third-party review of a company's financial statements (Messier et al. 2006). The independence of an auditor is a quality considered by many to be the cornerstone of the auditing profession because without it, public trust is lost. Audit decisions that are affected by impaired independence may lead to a reduction in the quality of the audit. Further, when the quality of an audit is diminished there is a higher probability for inappropriate financial reporting, which, when discovered can have a negative impact on all stakeholders. For example, the discovery of inappropriate reporting may decrease the value of shareholder and creditor interests, increase the audit client's cost of capital, increase the costs for regulators to restore investor confidence, and cause a reputational loss for the auditors and the profession (Johnstone et al. 2001).

The highly publicized accounting scandals in recent years, such as Enron, WorldCom, and Xerox, have tarnished the auditing profession's reputation (Tie 2002; Reynolds 2003). The central issue in many of these scandals is whether the company's auditors were truly independent. In a Wall Street Journal article published shortly after the Enron fiasco, Herrick and Barrionuevo (2002) raise the question of whether Enron and their auditor, Arthur Andersen, were

too close-knit. Andersen employees were provided permanent offices at Enron, celebrated office birthdays, attended lunch parties and charity events, and even joined Enron employees on ski trips. The authors suggest this close relationship may have affected Andersen's ability to objectively and thoroughly review Enron's financial statements. In their framework for understanding the antecedents and consequences of impaired independence Johnstone et al. (2001) propose that an interpersonal relationship between the auditor and client is one incentive for auditors to allow their independence to become impaired. Further, some believe that as the auditor-client relationship lengthens a bond may develop between auditor and client and mutual trust may replace the auditor's objectivity (Latham et al. 1998, 168). Together these suggest that auditors may develop trust in a client's management, and this trust may affect their audit decisions. However, due to a lack of research, little is known regarding whether auditors develop trust in a client and whether that trust affects their decisions. The overall goal of this dissertation is to begin to fill this void in the literature.

This dissertation utilizes an experimental methodology and presents three research studies that investigate the role an auditor's trust plays in his or her audit decisions. Utilizing the framework of trust from Nootboom (1996), an auditor's trust in a client's management consists of two dimensions. Competence trust refers to the trust in management's ability to perform according to agreements, while goodwill trust refers to the trust in management's intentions to perform according to agreements (Nootboom 1996, 990). Goodwill trust, hereafter also referred to simply as trust, is the focus of this dissertation and is conceptualized as the auditor's belief in management's good intentions, honesty, dependability, helpfulness, etc.

The goals of the first study (chapter 2) are to examine whether an auditor develops trust in the client's management as a result of working with the management during previous audit engagements, and if trust does develop, to investigate whether trust affects the auditor's perceived risk of fraud. The results of an experimental case completed by 89 professional auditors indicate that an auditor trusts the client's management more after a positive, overall satisfying experience working with the management during prior audit engagements compared to a negative, overall unsatisfying experience. The results also show that an auditor's trust is negatively related to his or her fraud risk assessment, with higher levels of trust associated with

lower risk, and vice versa. Together the results suggest that auditors do indeed develop trust in a client's management and this trust may affect their audit decisions.

Criticisms regarding close auditor-client relationships suggest that excessive trust in a client's management is unethical because it would impair an auditor's objectivity and professional skepticism. Based on this, the second study (chapter 3) investigates whether an auditor's decision to trust a client's management, and more importantly, the extent to trust them, is, at least in part, an ethical judgment. Kohlberg (1969) developed a justice-based model of moral reasoning which has been utilized for research in a variety of disciplines (e.g. accounting, education, marketing, psychology). Overall, the research demonstrates that individuals' moral reasoning affects their decisions and behaviors (see Rest et al. 1999). The second study examines whether an individual's level of moral reasoning affects his or her decision to trust a client's management, and the extent to which to trust them. The results of a case completed by 126 Certified Public Accountants indicate that individuals with relatively higher levels of moral reasoning have less trust in a client's management than those with relatively lower levels of moral reasoning. This suggests that the decision to trust a client, and the extent to trust them, is in part, an ethical judgment.

The goal of the third study (chapter 4) is to extend the results of the first study by examining the effects of auditors' trust within Johnstone et al.'s (2001) framework of impaired independence. In short, the framework proposes that audit decisions may be affected by impaired independence if incentives to the auditor are present and the auditor is making a judgment-based decision, such as an ambiguous decision with no clear right or wrong. Further, theory and research (e.g. Kadous et al. 2003) suggest that audit decisions are indirectly affected by incentives, by way of auditors' commitment to the goal of supporting one desired alternative, such as the client's preferred method of reporting. This study investigates these relationships in an ambiguous revenue recognition scenario by simultaneously examining the effects of two incentives – auditors' trust in the client and the financial importance of the client. The results indicate that auditors' trust is positively related to their commitment to the goal of supporting the client's preferred method. The financial importance of the client to the local office of the audit firm, however, is not associated with auditors' goal commitment. Further, the results show a

positive relationship between auditors' goal commitment and their judgment of the acceptability of the client's method for financial statement reporting. These findings suggest that auditors with higher levels of trust in a client's management may be more likely to accept the client's preferred financial statement reporting methods.

The remainder of this dissertation is organized as follows. Chapters two through four present the three studies. Each of these chapters includes an introduction to the research study, a presentation of prior literature, a description of the study's research method, a presentation of the results, and a discussion of the study's implications, limitations, and suggestions for future research. The fifth chapter summarizes the findings and contributions of the dissertation as well as the potential avenues for future research.

## REFERENCES

- Herrick, T., and A. Barrionuevo. 2002, January 21. Were auditor and client too close-knit? Wall Street Journal p. C1.
- Johnstone, K. M., M. H. Sutton, and T. D. Warfield. 2001. Antecedents and consequences of independence risk: Framework for analysis. *Accounting Horizons* 15 (1): 1-18.
- Kadous, K., S. J. Kennedy, and M. E. Peecher. 2003. The effect of quality assessment and directional goal commitment on auditors' acceptance of client-preferred accounting methods. *The Accounting Review* 78 (3): 759-778.
- Kohlberg, L. 1969. Stages and sequences: The cognitive developmental approach to socialization. In D. Goslin (Ed.), *Handbook of Socialization Theory and Research* (pp. 347-480). Chicago: Rand McNally.
- Latham, C., F. Jacobs, and P. Roush. 1998. Does auditor tenure matter? *Research in Accounting Regulation* 12: 165-177.
- Messier, W. F. Jr., S. M. Glover, and D. F. Prawitt. 2006. *Auditing & Assurance Services: A Systematic Approach 4<sup>th</sup> edition*. New York: McGraw-Hill Irwin.
- Nooteboom, B. 1996. Trust, opportunism and governance: A process and control model. *Organization Studies* 17 (6): 985-1010.
- Rest, J. R., D. Narvaez, M. J. Bebeau, and S. J. Thoma. 1999. *Postconventional Moral Thinking: A Neo-Kohlbergian Approach* (4th ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Reynolds, B. 2003. News: Reputational remedial. *Accountancy*; London 131 (1313): 7.
- Tie, R. 2002. Rebuilding trust. *Journal of Accountancy* 194 (6): 61-63.

**CHAPTER 2:**  
**Trusting Client’s Management: Do Auditors Develop Trust and Does It Affect Fraud Risk Assessments?**

**INTRODUCTION**

Recent accounting scandals have ignited an increased interest in fraudulent financial reporting. In 1997, the American Institute of Certified Public Accountants (AICPA) issued SAS No. 82, *Consideration of Fraud in a Financial Statement Audit*. This standard requires the auditor to specifically assess the risk of material misstatement due to fraud and provides guidance on the auditor’s response to the results of the assessment.<sup>1</sup> Furthermore, in October 2002, the AICPA superseded SAS No. 82 with SAS No. 99, also titled *Consideration of Fraud in a Financial Statement Audit*. This new standard does not drastically change the auditor’s responsibilities. Rather, SAS No. 99 provides auditors additional guidance in fulfilling their responsibilities relating to detecting fraud in a financial statement audit. A key provision in SAS No. 99 is an increased emphasis on professional skepticism. Professional skepticism is defined as “an attitude that includes a questioning mind and a critical assessment of audit evidence” (AICPA 2002, paragraph 13, p. 10).

---

<sup>1</sup> Specifically assessing the risk of fraud has been found to improve auditors’ ability to detect fraud (e.g., Zimbelman 1997; Knapp and Knapp 2001).

Despite the requirement of professional skepticism, proponents of mandatory auditor rotation argue that as the auditor-client relationship lengthens, an auditor's objectivity can become impaired. Some researchers claim that "a behavioral bond develops between auditor and auditee as they become more familiar with each other and mutual trust replaces the auditor's necessary professional skepticism" (Latham et al. 1998, 168). If this statement is correct, it is plausible that the auditor's perceived risk of management fraud could be influenced by this "bond." Previous research, however, has not thoroughly dissected and tested this potential relationship. This study explores whether an auditor develops trust in the client's management as a result of working with the client during prior audit engagements. Further, if trust does develop, this study investigates whether an auditor's trust affects his or her fraud risk assessment.

This paper reports the results of an experimental case completed by 89 professional auditors, all with experience assessing fraud risk. The experimental case utilized was identical for all participants with the exception of the description of the results for the previous year's audit. Auditors received one of two experimental cases. In the positive manipulation the results of the prior year's audit engagement were presented to create an overall satisfying experience working with the client's management, while the negative manipulation creates an overall unsatisfying experience working with the management. Regression analysis indicates that working with the client's management during prior audit engagements may cause an auditor to develop trust in the client's management. The analysis also shows the auditor's trust affects his or her fraud risk assessment. Specifically, we find that positive previous audit engagements with a client lead to higher levels of trust in the client's management compared to negative prior audit engagements. Further, the auditor's trust is negatively related to his or her perceived risk of management fraud, with higher levels of trust associated with lower risk and vice versa.

This study differs from previous auditing research and contributes to the literature in two ways: 1) to our knowledge, this is the only study to explicitly investigate whether auditors develop trust in a client's management and to examine whether trust affects their decisions; and, 2) we develop a measure of an auditor's trust in a client's management that may prove useful for future auditing judgment and decision-making research.



The remainder of this study is organized into four sections. We first present the relevant prior literature and develop our research questions. The second section discusses the research methods and the third presents the results. We conclude with a summary of the main research findings and a discussion of the limitations, contributions, and implications of the study.

## **PRIOR LITERATURE**

### **Trust**

We utilize the framework of trust from Nootboom (1996) and adopted by Das and Teng (2001) because of its adaptability to an auditing context. In this framework, trust has two dimensions. The first, competence trust, refers to the trust that may be had in an individual's ability to perform according to agreements. The second, goodwill trust, refers to the trust that may be had in an individual's intentions to perform according to agreements (Nootboom 1996, 990).<sup>2</sup> We control for competence trust, as it is not of primary interest in this study. Goodwill trust is the focus in this study and is conceptualized as the belief in one's good intentions, honesty, dependability, helpfulness, etc.

Although not the object of extensive empirical testing, previous research suggests that trust develops (deteriorates), at least in part, as a function of positive (negative) prior experience with an individual or group (e.g., Ring and Van De Ven 1992; Ganesan 1994; Doney and Cannon 1997; Flores and Solomon 1998). We found one study in the field of auditing that identifies and tests this relationship. Shaub (1996) finds that auditors who receive information about inaccuracies in the previous year's inventory evaluate both the likelihood of the current year's inventory as being overstated and the likelihood of requiring more audit procedures as higher compared to auditors who do not receive information regarding inaccuracies. These results are interpreted by the author as indicating that the auditor's trust in the client's management decreases when inaccuracies are revealed in the previous year's audit results. Although Shaub (1996) provides preliminary evidence regarding the effect of prior audit engagements on trust, the inaccuracies represent a negative prior audit experience with the client's competence and therefore the study addresses competence trust. This study attempts to

---

<sup>2</sup> The term "goodwill trust" is also used by Ring and Van De Ven (1992). Other researchers make similar distinctions between a competence component and one or more components of goodwill trust (e.g., Kee and Knox 1970; Lieberman 1981; Ganesan 1994; Mayer et al. 1995; Shaub 1996).

explicitly measure and test whether an auditor develops trust, specifically goodwill trust, in the client's management as a result of working with the client during prior audit engagements. Hereafter, "goodwill trust" is referred to simply as trust. Due to the lack of previous empirical testing, we will examine the following research question:

RQ1: Does an auditor develop trust in the client's management as a result of working with the client during prior audit engagements?

### **Perceived Risk of Management Fraud**

SAS No. 99 distinguishes between two types of fraud the auditor should be cognizant of during a financial statement audit. The one relevant to this study is misstatements arising from fraudulent financial reporting.<sup>3</sup> The framework for risk in this study is also taken from Das and Teng (2001). We selected this framework because of its adaptability to an auditing context. The framework delineates two components of perceived risk: relational risk, which is "the probability and consequences of not having satisfactory cooperation" (Das and Teng 2001, 253); and performance risk, which is "the probability and consequences that objectives are not achieved, despite satisfactory cooperation among firms" (253). In this study, performance risk is defined as the risk that management is not competent. We control for performance risk, because, like competence trust, it is not of primary interest in this study. In contrast, relational risk, the risk that management will not cooperate with the auditor, is the focus of this experiment. Hereafter, "perceived risk of management fraud" refers to the auditor's perceived risk that management will not cooperate and will intentionally misstate the financial statements.

According to Das and Teng's (2001) framework, auditors' trust should be negatively related to their perceived risk of fraud. To our knowledge, no previous auditing research has explicitly measured and examined the effect of trust on auditors' decisions. Further, the connection between trust and perceived risk of management fraud has not been examined. One stream of research, however, has investigated the effect that an auditor's beliefs regarding the client's (or management's) integrity has on auditor decisions and suggests that such beliefs may affect an auditor's trust in that management, and thus may shed light on the potential effects of

---

<sup>3</sup> The second type of fraud is misstatements arising from misappropriation of assets.

trust on auditor decisions. This research stream finds the client's integrity influences auditors' business and combined risk assessments (Beaulieu 2001), acceptance of client explanations (Peecher 1996), and likelihood assessments of account overstatement and required write-downs (Goodwin 1999). Although none of these studies specifically address the issue of measuring trust, it is possible that the manipulations of integrity affect the auditors' trust. This study extends the current literature by developing a specific measure of auditors' trust and investigating whether this construct helps explain auditors' decisions, specifically, their fraud risk assessments. Due to the lack previous empirical testing, we will examine the following research question:

RQ2: Does an auditor's trust in the client's management affect his or her fraud risk assessment?

## **METHODS**

### **Sample**

Data for this study were collected in two ways. First, experimental cases were provided to all attendees of an Accounting and Auditing Conference. Participation was encouraged by providing raffle tickets to those who completed the instrument. During the last session of the conference, four tickets were randomly selected and prizes were distributed to winners.<sup>4</sup> Sixty-eight cases were completed and returned. Second, 60 experimental instruments were mailed to contact partners at an office of four audit firms (15 per firm). The contact partner distributed the instruments to auditor participants of his or her choosing. Once completed, the participants returned the cases to the contact partner, who then mailed them to one of the researchers. Of the 60 instruments sent, 45 (75.0 percent) were returned, with responses from firms ranging from seven to 15.<sup>5</sup> Combining the two groups, a total of 113 cases were completed.<sup>6</sup> Of the 113 instruments completed, 23 were excluded because participants indicated they had no experience

---

<sup>4</sup> The four prizes included three desktop stereo/CD players and a one-hundred dollar cash prize.

<sup>5</sup> The response rate of 75 percent is in line with previous auditing research utilizing contact persons. For example, Asare et al. (2000) had a response rate of 78.6 percent and Taylor (2000) had a response rate of 74 percent.

<sup>6</sup> Because data were collected utilizing contact persons and conference volunteers, we are unable to test for non-response bias.

assessing the risk of fraud.<sup>7</sup> One additional auditor was excluded because he/she failed to provide a fraud risk assessment. Thus, our analysis is based on responses from 89 auditors.

Table 2-1 provides a number of descriptive statistics which show that 51 (57.3 percent) and 38 (42.7 percent) of the auditors were from Non-Big 4 firms and Big 4 firms, respectively. Further, the 51 Non-Big 4 auditors were employed at firms of varying sizes, including national, regional, local, and sole practitioner. The participants included a variety of position levels within the firms: six (6.7 percent) staff, 11 (12.4 percent) in-charge, 32 (36.0 percent) managers, and 40 (44.9 percent) partners. Participants had an average of 14.1 years of auditing experience, ranging from one year to 38 years. Thirty-six (40.4 percent) auditors reported having directly participated in at least one audit that eventually detected financial statement fraud committed by client management. The sample consisted of 67 (75.3 percent) males and 22 (24.7 percent) females. Lastly, 43 (48.3 percent) participants received the positive prior audit engagement experimental case while the other 46 (51.7 percent) received the negative case.

## **Instrument**

The experimental case developed for this study (see Appendix A) consists of four sections and can be completed in approximately 20 minutes. The first section instructed the participants to assume the role of a supervising auditor and contains information pertaining to the planning of last year's audit. All participants received the same information describing the planning of last year's audit. Auditors are instructed that he/she worked for the first time on the audit of XYZ Corporation, however it was the fourth year their firm had audited XYZ.<sup>8</sup> The auditors were then presented information describing the size and firm-type of XYZ (medium-sized furniture manufacturer). To control for performance risk and competence trust, participants also received a fairly extensive description of XYZ's management. In this description, auditors received numerous cues indicating that management was very qualified and competent to make management decisions and to prepare financial statements. The information also included the

---

<sup>7</sup> This was based on participants' response (yes or no) to the following item: "Have you had previous experience assessing fraud risk?"

<sup>8</sup> We used the fourth year audit for the firm because we wanted to avoid the possible fluctuations in risk assessments that may occur during the first couple of years of auditing a new client.

results of a red flag checklist, which identifies whether certain fraud indicators are present.<sup>9</sup> The checklist contained 20 items,<sup>10</sup> three of which were marked as present. The main purpose of the red flag checklist in this instrument is to control for the potential confound of changes in XYZ's operations (i.e., the same three items will be indicated as present in the current year). Finally, auditors were told that at the end of last year's planning phase they assessed the risk of management fraud at 3 – "Medium Risk." This was based on a five-point scale anchored 1 – "Very Low Risk" and 5 – "Very High Risk," with the above-mentioned midpoint.

The second section of the instrument described the results of last year's audit. Here we manipulated, as positive or negative, the auditor's previous audit engagement experience with XYZ's management. The manipulation was intended to create either an overall satisfying or unsatisfying experience working with XYZ's management. This was done by providing details regarding last year's audit work. These details were developed by the researchers, based in part, on personal experiences, but mainly by utilizing previously developed job and customer satisfaction scales from the psychology and marketing literature. We adapted scale items from numerous studies (Nicholls et al. 1998; Ironson et al. 1989; King 1960; Twery et al. 1958), and incorporated them into the results of the audit work. For example, one of Nicholls et al.'s (1998) components of customer satisfaction is timely service. It seems likely that a timely (untimely) response by client management to an auditor's request would increase (decrease) the auditor's satisfaction with working with the client's management during the audit engagement. Therefore, in the positive (negative) audit engagement manipulation we included a phrase describing how management made a recommended adjustment without hesitation (put off responding to the adjustment). The complete audit engagement manipulations are provided in Table 2-2.

The third section of the instrument provided all participants with the same information pertaining to the planning phase of the current year's audit. Here the auditors are told that XYZ's

---

<sup>9</sup> While previous research generally shows that red flag checklists are not as useful as other decision aids in fraud risk assessment (e.g., Loebbecke et al. 1989; Eining et al. 1997; Bell and Carcello 2000), Shelton et al. (2001) reports finding three Big 5 firms that utilize a red flag checklist to identify the presence or absence of fraud risk factors.

<sup>10</sup> Adapted from one or more of the following: AICPA 1997; AICPA 2002; Apostolou et al. 2001; Bell and Carcello 2000; Eining et al. 1997; Hackenbrack 1993; Davidson 1994; Zimbelman 1997.

management consists of the same individuals and that the results of the red flags checklist are the same as last year's.

The final section of the instrument elicited responses to items measuring the variables of interest and demographic variables. The first item asks the auditors to assess the risk of management fraud for the current year's audit. This was based on a five point scale with anchors on the endpoints and midpoint: 1 – "Very Low Risk," 3 – "Medium Risk," 5 – "Very High Risk." The second item is included to check whether the control for high management competence was successful. The item states: "XYZ's management is competent." This item, and all of the remaining items, is measured on a seven-point, Likert-type scale with anchors at each point (1 – "Strongly Disagree," 2 – "Disagree," 3 – "Slightly Disagree," 4 – "Neither Agree nor Disagree," 5 – "Slightly Agree," 6 – "Agree," 7 – "Strongly Agree"). The third item serves as our manipulation check and measures how satisfied the auditor was with their experience working with the client's management. This item states: "I am satisfied with my experience with XYZ Corporation's management." The next five items measure the auditor's trust in XYZ's management. Finally, auditors were asked to provide additional demographic data.

### **Development of Trust Scale**

This section briefly describes the process we undertook to develop a scale designed to measure an auditor's trust in a client's management. We first identified existing measures of trust through a review of the psychology, management, and marketing literature. Nine of these scales were selected because their items could be easily modified and adapted to an auditing context (see Table 2-3 for the source of these scales). Items from these nine preexisting scales were modified to generate an initial sample of 32 items intended to measure an auditor's trust in a client's management. Two pilot studies were then conducted with the main goal of reducing the number of items in the trust scale. Each pilot study required the participants to complete the entire experimental instrument with all the sections described in the previous section.<sup>11</sup>

---

<sup>11</sup> The pilot studies were also conducted with the goal of ensuring the clarity of the experimental case. The responses led to some wording changes (e.g. originally developed manipulations were modified).

The first pilot study, which utilized 24 MBA students and 39 senior-level auditing students, included in the experimental instrument all 32 initially generated trust items. An examination of the participants' responses to the trust items (same seven-point Likert-type scale used in the final instrument) led to the elimination of 24 of the initial 32 items. These items were eliminated for one of two reasons: participant comments (e.g. participants indicated on the experimental instrument that they did not understand what an item was asking) or insufficient factor loadings.<sup>12, 13</sup> The remaining eight items loaded on a single factor, which explained over 60 percent of the variance and had a Cronbach's Alpha of 0.90.

The second pilot study, like the first, was conducted to further reduce the number of scale items. This pilot study also required participants to complete the entire experimental instrument which included the remaining eight trust items identified in the first pilot study. Participants for this pilot study were 58 practicing auditors. These included auditors from each of the Big 4 firms (total of 12 offices) and nine Non-Big 4 firms (total of nine offices). They had an average of 7.39 years of auditing experience and included ten (17.2 percent) staff, 18 (31.0 percent) in-charge, 22 (37.9 percent) managers, and eight (13.8 percent) partners. Participant responses to the trust items were analyzed, and based on a PCA with varimax rotation, three items were eliminated. The remaining five items loaded on a single factor, which explained over 69 percent of the variance and had a Cronbach's Alpha of 0.89. These psychometric properties of the five-item trust scale were deemed satisfactory; hence the scale was included in our main data collection (see Table 2-4 for final five items).

## **RESULTS**

### **Descriptive Statistics and Correlations**

Table 2-5 shows, for each experimental version and in total, the means and standard deviations of all measured variables. Table 2-6 shows the correlations between all measured and manipulated variables. The Spearman's rho correlation of 0.751 between "Version" and "Trust" provides preliminary evidence that auditors may develop trust in the client's management as a

---

<sup>12</sup> Multiple iterations of Principal Components Analysis, or PCA, with varimax rotation were performed (i.e. a new PCA was performed after each item was eliminated).

<sup>13</sup> During the development of the scale, great care was taken to ensure items were not discarded without just reason. For example, some items loaded highly on factors that were obviously interpretable as tapping into a construct other than goodwill trust.

result of working with the client during prior audit engagements. Further, the Pearson's product-moment correlation of -0.554 between "Trust" and "Risk" provides initial evidence suggesting auditors' trust may affect their fraud risk assessments.<sup>14</sup>

### **Manipulation Checks**

The experimental manipulation of this study was the auditor's previous audit engagement experience with the client's management. We manipulated this as either a positive, overall satisfying, or a negative, overall unsatisfying experience working with XYZ's management. To test whether the manipulation was successful we included a single test item stating that the participant is satisfied with their experience with management and asked the participants to indicate their level of agreement based on a seven-point scale. The mean level of agreement to this item was 4.15 and 5.88 for participants receiving the negative and positive manipulation, respectively. This difference is statistically significant ( $p < 0.001$ , one-tailed), and suggests that our experimental manipulation successfully created varying levels of satisfaction working with XYZ's management during prior audit engagements.

As explained previously, we controlled the competence level of management as high and verified this control by including a single test item stating that the management is competent and asked the participant to indicate his or her level of agreement based on a seven-point scale. The mean level of agreement to this item was 5.93, which is significantly greater than the midpoint ( $p < 0.001$ , one-tailed). We also tested whether there was a significant difference in participants' perception of management's competence depending on the previous audit engagement manipulation. The mean agreement to the competence item was 5.91 and 5.95 for participants receiving the negative and positive condition, respectively. These are not statistically different ( $p = 0.834$ , two-tailed), and suggest that our control for high management competence was successful.

---

<sup>14</sup> The Pearson's product-moment correlations between "Comp" and both "Trust" (0.244) and "Risk" (-0.220) should be noted at this point because they were not expected. These two correlations indicate that the participant's assessment of the competence of the client's management is associated with the participant's trust in the management and his or her fraud risk assessment. This finding was unexpected because we successfully controlled the competence level of management as high, as discussed in the following section. Our statistical results and conclusions are qualitatively the same when competence is included in the main analyses, and therefore, we exclude competence from the main analyses presented.



## Main Analysis

The first step in the analysis is to confirm, utilizing the final sample of auditors, the factor structure of the five-item trust scale. A confirmatory factor analysis verified the five items loaded on a single factor (all factor loadings greater than 0.77) that explained over 71 percent of the variance and had a Cronbach's Alpha of 0.90. With the factor structure of the trust scale confirmed, we next investigated the research questions.

The first research question seeks to examine whether an auditor develops trust in the client's management as a result of working with the client during prior audit engagements. We manipulated the prior audit engagement as either a positive, overall satisfying experience, or a negative, overall unsatisfying experience working with the client's management. To test whether the prior audit engagement manipulation affected the auditor's trust in management, we performed a simple regression with trust as the dependent variable and the manipulated version as the independent variable. As shown in Table 2-7 (Model 1), the results indicate that the prior audit engagement is positive and significantly related to auditors' trust ( $p < 0.001$ ). Further, the prior experience of working with the client's management explains over 53 percent of the variance in auditors' trust, and suggests that auditors develop trust in the client's management as a result of working with the client during prior audit engagements. Specifically, an auditor trusts the client's management more after a positive, overall satisfying experience working with management during prior audit engagements compared to a negative, overall unsatisfying experience.<sup>15</sup>

The second research question seeks to investigate whether an auditor's trust in the client's management affects his or her fraud risk assessment. To test this potential relationship we performed a simple regression with the auditor's fraud risk assessment as the dependent variable and the auditor's trust as the independent variable. The results, shown in Table 2-7 (Model 2), indicate auditors' trust is negative and significantly related to their fraud risk assessments ( $p < 0.001$ ) and explains almost 30 percent of the variance in the assessments. This

---

<sup>15</sup> We also tested the first research question utilizing a Multivariate Analysis of Variance (MANOVA) with the five trust items and the overall trust measure as the dependent variables and the experimental version as the independent variable. The experimental version was significant ( $p < 0.001$ ) in the overall MANOVA. The experimental version was also significant in separate Analysis of Variances for each item with the positive, overall satisfying experience leading to higher levels of trust.

suggests auditors' fraud risk assessments are affected by their trust in the client's management. Specifically, a higher level of trust in the client's management is associated with a lower perceived risk of management fraud, and vice versa.

Together, our results indicate that working with the client's management during previous audit engagements affects an auditor's trust in the management, which in turn affects the auditor's perceived risk of fraud. An alternative explanation to the results is that our prior audit engagement manipulation directly affected the auditor's perceived risk of fraud. To examine whether our manipulation inadvertently manipulated fraud risk we regressed fraud risk assessments on trust and the experimental version.<sup>16</sup> The results of this regression, shown in Table 2-7 (Model 3), indicate that after controlling for the effects of trust ( $p < 0.001$ ), the experimental version did not affect fraud risk assessments ( $p = 0.931$ ), thus suggesting our manipulation did not directly affect auditors' perceived risk of fraud.<sup>17</sup>

### **Supplemental Analysis**

We tested whether any of the categorical demographic control variables affected auditors' trust. The control variables of interest are gender, certified public accountant (yes or no), rank (staff, in-charge, manager, or partner), previous participation on one or more fraud audits (yes or no), and firm type (Big 4 or non-Big 4). To do this, we performed one Analysis of Variance (ANOVA) for each control variable. Each ANOVA included the control variable and the experimental version as independent variables. No control variables or their interaction with version were significant (all  $p > 0.05$ ). We also tested whether any of the five categorical demographic control variables affected the auditor's fraud risk assessment. To do this, we performed one Analysis of Covariance (ANCOVA) for each control variable. Each ANCOVA included the control variable and the experimental version as independent variables and trust as the covariate. No control variables or their interaction with version were significant (all  $p > 0.05$ ). Lastly, we tested whether years of auditing experience, hereafter years, affected trust or fraud risk assessments. Years was not significant when trust was regressed on version and years.

---

<sup>16</sup> We initially included the interaction term of trust and the experimental version; however, the variance inflation factors for the interaction term (38.5) and the experimental version (29.5) indicated high multicollinearity. Because of the difficulty interpreting the results we excluded the interaction term from the analysis.

<sup>17</sup> All tests of the research questions are qualitatively the same (not tabulated) when the six staff-level auditors are removed from the sample.

It was significantly positive ( $p = 0.012$ ) when fraud risk assessment was regressed on trust, version, and years. However, our statistical results and conclusions regarding the effect of trust on fraud risk assessments are qualitatively the same when years is included.

## **DISCUSSION**

Our goals for this study were to investigate whether an auditor develops trust in the client's management as a result of working with the client during prior audit engagements, and, if trust does develop, to examine whether trust affects the auditor's fraud risk assessment. The results of an experimental case completed by 89 professional auditors suggest that auditors may indeed develop trust in a client's management and this trust may affect their perceived risk of management fraud. Specifically, we find that a positive, overall satisfying experience working with the client's management during previous audit engagements results in a higher level of trust in the management compared to a negative, overall unsatisfying experience. We also find a negative relationship between trust and perceived risk of fraud, indicating auditors perceive a lower risk of fraud when they trust management.

The implications of our findings are dependent upon whether you believe it is appropriate for auditors to trust the client's management and whether their trust should affect, at least in part, their audit decisions. There are two ways to look at the implications of this study. You may believe, as proponents of mandatory auditor rotation have argued, that trust impairs auditors' objectivity and replaces their necessary professional skepticism. If this is the case, then our results indicate auditors may indeed not be able to maintain their objectivity and professional skepticism. This suggests that management simply providing the auditor with a positive, overall satisfying experience (e.g. friendly attitude, making recommended immaterial adjustments, etc.), may be enough to "soften up" the auditor in order to sneak something by them in future years. On the other hand, you may believe that auditors can trust the client's management while maintaining their professional skepticism. Further, you may believe the trustworthiness of the client's management is an important component of management's character and should be used as evidence when making audit decisions. If this is the case, our results indicate auditors are appropriately integrating all available evidence into their decision-making, thus leading to a more efficient audit.

We acknowledge that this study, like others performed in an artificial setting, has limitations. We find an auditor's trust is affected by his or her experience working with the client's management during prior audit engagements; however, a bond developed in the "real world" may potentially be even stronger. Future research could begin to investigate this utilizing a game theory experiment requiring participants to play the role of auditors and client management. Also, while we attempted to collect data from a diverse group of auditors, our results may not be representative of all external auditors. Future research may look to replicate these findings under different conditions.

Although this study was exploratory in nature, it provides future research with a variety of avenues for consideration, beyond mere replication. This study investigated the auditor-client relationship based on a single past audit engagement. It would be interesting to identify whether auditors' trust in the client's management changes after differentially satisfying experiences with the same client. For example, can one dissatisfying experience working with the client offset the effects of four prior satisfying experiences? Also, if auditors' trust affects their fraud risk assessment, it may also affect other audit decisions. For example, would trust have a similar effect when auditors evaluate the fairness of individual account balances, as opposed to an overall fraud risk assessment? Lastly, future research could investigate whether the relationships found in this study are constant across clients of varying importance to the audit firm.

This study differs from previous auditing research and contributes to the literature in two primary ways. First, to our knowledge, this is the only study to explicitly investigate whether an auditor develops trust in the client's management and to examine whether this trust affects his or her audit decisions. Second, we develop a measure of an auditor's trust in a client's management that may prove useful for future auditing judgment and decision-making research. In conclusion, using a sample of professional auditors, our results suggest auditors may develop trust in a client's management as a result of working with the client during prior audit engagements and this trust may affect audit decisions.

## REFERENCES

- American Institute of Certified Public Accountants (AICPA). 1997. *Consideration of Fraud in a Financial Statement Audit*. Statement on Auditing Standards No. 82. New York: AICPA.
- . 2002. *Consideration of Fraud in a Financial Statement Audit*. Statement on Auditing Standards No. 99. New York: AICPA.
- Apostolou, B., J. Hassell, S. Webber, and G. Sumners. 2001. The relative importance of management fraud risk factors. *Behavioral Research in Accounting* 13: 1-24.
- Armitage, C., and M. Conner. 1999. The theory of planned behaviour: Assessment of predictive validity and 'perceived control'. *British Journal of Social Psychology* 38: 35-54.
- Asare, S., G. Trompeter, and A. Wright. 2000. The effect of accountability and time budgets on auditors' testing strategies. *Contemporary Accounting Research* 17 (Winter): 539-560.
- Beaulieu, P. 2001. The effects of judgments of new clients' integrity upon risk judgments, audit evidence, and fees. *Auditing: A Journal of Practice & Theory* 20 (September): 85-99.
- Bell, T., and J. Carcello. 2000. Research notes: A decision aid for assessing the likelihood of fraudulent financial reporting. *Auditing: A Journal of Practice & Theory* 19 (Spring): 169-184.
- Cook, J., and T. Wall. 1980. New work attitude measures of trust, organizational commitment and personal need non-fulfillment. *Journal of Occupational Psychology* 53: 39-52.
- Craig, S., and S. Gustafson. 1998. Perceived leader integrity scale: An instrument for assessing employee perceptions of leader integrity. *Leadership Quarterly* 9 (2): 127-145.
- Das, T., and B. Teng. 2001. Trust, control, and risk in strategic alliances: An integrated framework. *Organization Studies* 22 (2): 251-283.
- Davidson, A. S. 1994. Discussion of fraud detection: The effect of client integrity and competence and auditor cognitive style. *Auditing: A Journal of Practice & Theory* 13 (Auditing Symposium): 85-89.
- Doney, P., and J. Cannon. 1997. An examination of the nature of trust in buyer-seller relationships. *Journal of Marketing* 61 (April): 35-51.
- Eining, M., D. Jones, and J. Loebbecke. 1997. Reliance on decision aids: An examination of auditors' assessment of management fraud. *Auditing: A Journal of Practice & Theory* 16 (Fall): 1-19.
- Flores, F., and R. Solomon. 1998. Creating trust. *Business Ethics Quarterly* 8 (April): 205-232.

- Ganesan, S. 1994. Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing* 58 (April): 1-19.
- Goodwin, J. 1999. The effects of source integrity and consistency of evidence on auditors' judgments. *Auditing: A Journal of Practice & Theory* 18 (Fall): 1-16.
- Hackenbrack, K. 1993. The effect of experience with different sized clients on auditor evaluations of fraudulent financial reporting indicators. *Auditing: A Journal of Practice & Theory* 12 (Spring): 99-110.
- Ironson, G., P. Smith, M. Brannick, W. Gibson, and K. Paul. 1989. Construction of a job in general scale: A comparison of global, composite, and specific measures. *Journal of Applied Psychology* 74 (2): 193-200.
- Kee, H., and R. Knox. 1970. Conceptual and methodological considerations in the study of trust and suspicion. *The Journal of Conflict Resolution* 14 (3): 357-366.
- King, D. 1960. A multiplant factor analysis of employees' attitudes toward their company. *Journal of Applied Psychology* 40: 241-243.
- Knapp, C., and M. Knapp. 2001. The effects of experience and explicit fraud risk assessment in detecting fraud with analytical procedures. *Accounting, Organizations and Society* 26: 25-37.
- Latham, C., F. Jacobs, and P. Roush. 1998. Does auditor tenure matter? *Research in Accounting Regulation* 12: 165-177.
- Lieberman, J. 1981. *The Litigious Society*. New York: Basic Books.
- Loebbecke, J., M. Eining, and J. Willingham. 1989. Auditors' experience with material irregularities: Frequency, nature, and detectability. *Auditing: A Journal of Practice & Theory* 9 (Fall): 1-28.
- Mayer, R., J. Davis, and F. Schoorman. 1995. An integrative model of organizational trust. *Academy of Management Review* 20: 709-734.
- Nicholls, J., G. Gilbert, and S. Roslow. 1998. Parsimonious measurement of customer satisfaction with personal service and the service setting. *Journal of Consumer Marketing* 15 (3): 239-253.
- Nooteboom, B. 1996. Trust, opportunism and governance: A process and control model. *Organization Studies* 17 (6): 985-1010.
- Peecher, M. 1996. The influence of auditors' justification processes on their decisions: A cognitive model and experimental evidence. *Journal of Accounting Research* 34 (Spring): 125-140.

- Plank, R., D. Reid, and E. Bolman Pullins. 1999. Perceived trust in business-to-business sales: A new measure. *Journal of Personal Selling & Sales Management* 19 (3): 61-71.
- Rempel, J., J. Holmes, and M. Zanna. 1985. Trust in close relationships. *Journal of Personality and Social Psychology* 49: 95-112.
- Ring, P., and A. Van De Ven. 1992. Structuring cooperative relationships between organizations. *Strategic Management Journal* 13 (October): 483-498.
- Rioux, S., and L. Penner. 2001. The causes of organizational citizenship behavior: A motivational analysis. *Journal of Applied Psychology* 86 (6): 1306-1314.
- Rotter, J. 1967. A new scale for the measurement of interpersonal trust. *Journal of Personality* 35: 651-665.
- Shaub, M. 1996. Trust and suspicion: The effects of situational and dispositional factors on auditors' trust of clients. *Behavioral Research in Accounting* 8: 154-174.
- Shelton, S., O. Whittington, and D. Landsittel. 2001. Auditing firms' fraud risk assessment practices. *Accounting Horizons* 15 (March): 19-33.
- Taylor, M. 2000. The effects of industry specialization on auditors' inherent risk assessments and confidence judgments. *Contemporary Accounting Research* 17 (Winter): 693-712.
- Twery, R., J. Schmid, and C. Wrigley. 1958. Some factors in job satisfaction. *Educational and Psychological Measurement* 18: 189-202.
- Zimbelman, M. 1997. The effects of SAS No. 82 on auditors' attention to fraud risk factors and audit planning decisions. *Journal of Accounting Research* 35 (Supplement): 75-97.

## FIGURES AND TABLES

	<u>Count</u>	<u>Percent (%)</u>			
Firm type:					
Big 4	38	42.7			
Non-Big 4	51	57.3			
Position:					
Staff	6	6.7			
In-Charge	11	12.4			
Manager	32	36.0			
Partner	40	44.9			
Involved in audit(s) which detected financial statement fraud:					
Yes	36	40.4			
No	53	59.6			
Gender:					
Male	67	75.3			
Female	22	24.7			
Experimental version:					
Positive experience	43	48.3			
Negative experience	46	51.7			
	<u>Mean</u>	<u>Median</u>	<u>S.D.</u>	<u>Minimum</u>	<u>Maximum</u>
Years of auditing experience	14.11	12.00	9.36	1	38



<b>Table 2-2: Prior Audit Engagement Manipulations</b>
<p><i>Positive Audit Engagement:</i> overall satisfying experience working with client’s management</p> <p>“During the audit work, XYZ’s management always had a respectful attitude and never engaged in disputes with you. They always appeared to be well prepared for your meetings. When you were on location, you often joined them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment and XYZ’s management made it without hesitation. The end result of the audit was an unqualified opinion for XYZ’s financial statements.”</p> <p><i>Negative Audit Engagement:</i> overall unsatisfying experience working with client’s management</p> <p>“During the audit work, XYZ’s management had a hostile attitude and frequently engaged in disputes with you. They never appeared to be well prepared for your meetings. When you were on location, you were never invited to join them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment. XYZ’s management put off responding to your proposed adjustment until you mentioned it again a few days later. At this point they refused to make the adjustment. Because your proposed adjustment did not materially affect the financial statements, the end result of the audit was an unqualified opinion for XYZ’s financial statements.”</p>

**Table 2-3: Existing Scales Utilized to Develop Measure of Auditor's Trust**

Author(s) (Year): Name of scale or name of construct being measured

- Armitage and Conner (1999): Intentions
- Cook and Wall (1980): Interpersonal Trust at Work
- Craig and Gustafson (1998): Integrity
- Doney and Cannon (1997): Trust of Supplier Firm and Trust of Salesperson
- Ganesan (1994): Vendor's Benevolence
- Plank et al. (1999): Measures of Trust
- Rempel and Holmes (1985): Trust Scale (in close relationships)
- Rioux and Penner (2001): Motives
- Rotter (1967): Interpersonal Trust Scale

**Table 2-4: Trust Scale Items**

<b>Item</b>	
<b>Abbreviation</b>	<b>Item</b>
T1	I believe that XYZ Corporation's management are thoroughly dependable people.
T2	XYZ Corporation's management will do everything possible to help me.
T3	XYZ Corporation's management are like my friends.
T4	I do not think that XYZ Corporation's management is completely open in dealing with me. (R)
T5	XYZ Corporation's management plans to be helpful during future audits.

(R) – denotes negatively worded item  
Participant responses on a seven-point, Likert-type scale with anchors at each point (1: strongly disagree, 2: disagree, 3: slightly disagree, 4: neither agree nor disagree, 5: slightly agree, 6: agree, and 7: strongly agree).

**Table 2-5: Descriptive Statistics of Measured Variables**

<u>Version</u>	<b>Comp</b>		<b>Sat</b>		<b>T1</b>		<b>T2</b>		<b>T3</b>	
	<u>Mean</u>	<u>Std.Dev.</u>	<u>Mean</u>	<u>Std.Dev.</u>	<u>Mean</u>	<u>Std.Dev.</u>	<u>Mean</u>	<u>Std.Dev.</u>	<u>Mean</u>	<u>Std.Dev.</u>
Positive (N = 43)	5.95	0.688	5.88	0.762	5.26	0.928	5.05	0.950	3.60	1.348
Negative (N = 46)	5.91	1.071	4.15	1.577	4.15	1.414	2.78	1.114	2.09	0.890
Combined (N = 89)	5.93	0.902	4.99	1.519	4.69	1.319	3.88	1.536	2.82	1.361

<u>Version</u>	<b>T4</b>		<b>T5</b>		<b>Trust</b>		<b>Risk</b>	
	<u>Mean</u>	<u>Std.Dev.</u>	<u>Mean</u>	<u>Std.Dev.</u>	<u>Mean</u>	<u>Std.Dev.</u>	<u>Mean</u>	<u>Std.Dev.</u>
Positive (N = 43)	3.19	1.200	5.49	0.798	4.84	0.734	2.84	0.485
Negative (N = 46)	5.17	1.305	3.41	1.087	3.05	0.914	3.37	0.679
Combined (N = 89)	4.21	1.599	4.42	1.413	3.92	1.222	3.11	0.647

**Variables**

- Version:** Experimental case completed: 1 if positive, overall satisfying experience working with the client's management; 0 if negative, overall unsatisfying experience.
- Comp:** Participant's assessment of the competence of the client's management (higher assessment, more competent). Measured on a seven-point, Likert-type scale with anchors at each point (1: strongly disagree, 2: disagree, 3: slightly disagree, 4: neither agree nor disagree, 5: slightly agree, 6: agree, and 7: strongly agree).
- Sat:** Participant's assessment of how satisfied he or she was with their experience working with the client's management (higher assessment, more satisfied). Measured on a seven-point, Likert-type scale with anchors at each point (1: strongly disagree, 2: disagree, 3: slightly disagree, 4: neither agree nor disagree, 5: slightly agree, 6: agree, and 7: strongly agree).
- T1-T5:** See Table 2-4.
- Trust:** Participant's trust in the client's management (higher score, greater trust). Mean score of five items: T1, T2, T3, T4, and T5.
- Risk:** Participant's assessment of the risk of management fraud for the current year's audit. Measured on a five-point, Likert-type scale with anchors at 1: very low risk, 3: medium risk, and 5: very high risk.

**Table 2-6: Correlation Matrix of Measured and Manipulated Variables (n = 89)**

	Version	Comp	Sat	T1	T2	T3	T4	T5	Trust	Risk	Gender	CPA	Firm	Rank	Fraud	Years
<b>Version</b>	1	-0.072	0.572**	0.409**	0.752**	0.554**	-0.632**	0.746**	0.751**	-0.418**	0.189	0.032	0.029	-0.096	0.074	0.011
<b>Comp</b>	0.023	1	0.377**	0.381**	0.046	0.013	-0.257*	0.058	0.174	-0.217*	-0.111	0.033	-0.406**	-0.070	-0.150	0.053
<b>Sat</b>	0.573**	0.389**	1	0.618**	0.649**	0.455**	-0.636**	0.578**	0.702**	-0.392**	0.035	0.107	-0.205	0.039	0.062	0.110
<b>T1</b>	0.420**	0.431**	0.628**	1	0.586**	0.453**	-0.640**	0.570**	0.746**	-0.435**	0.002	0.214*	-0.142	-0.038	-0.095	0.056
<b>T2</b>	0.741**	0.101	0.633**	0.603**	1	0.670**	-0.745**	0.808**	0.918**	-0.447**	0.086	0.132	-0.026	0.021	0.087	0.104
<b>T3</b>	0.560**	0.083	0.450**	0.455**	0.663**	1	-0.595**	0.646**	0.790**	-0.436**	0.157	0.122	-0.072	0.065	0.141	0.154
<b>T4</b>	-0.625**	-0.313**	-0.626**	-0.652**	-0.725**	-0.588**	1	-0.636**	-0.871**	0.483**	-0.062	0.040	0.007	0.130	-0.017	-0.014
<b>T5</b>	0.738**	0.111	0.580**	0.601**	0.804**	0.648**	-0.633**	1	0.866**	-0.490**	0.124	0.120	-0.075	0.021	-0.011	0.053
<b>Trust</b>	0.736**	0.244*	0.693**	0.779**	0.905**	0.792**	-0.862**	0.874**	1	-0.530**	0.120	0.127	-0.088	-0.010	0.042	0.108
<b>Risk</b>	-0.413**	-0.220*	-0.380**	-0.490**	-0.432**	-0.415**	0.493**	-0.511**	-0.554**	1	0.049	0.053	-0.025	0.195	0.108	0.154
<b>Gender</b>	0.189	-0.101	-0.004	-0.018	0.090	0.174	-0.054	0.114	0.098	0.060	1	0.123	-0.190	0.263*	0.101	0.374**
<b>CPA</b>	0.032	-0.022	0.108	0.184	0.140	0.115	0.039	0.116	0.117	0.051	0.123	1	-0.338**	0.479**	0.071	0.439**
<b>Firm</b>	0.029	-0.340**	-0.189	-0.139	-0.019	-0.104	0.013	-0.061	-0.076	-0.045	-0.190	-0.338**	1	-0.408**	-0.017	-0.502**
<b>Rank</b>	-0.080	-0.110	0.043	-0.006	0.042	0.102	0.121	0.017	0.004	0.177	0.238*	0.620**	-0.386**	1	0.203	0.813**
<b>Fraud</b>	0.074	-0.142	0.052	-0.099	0.082	0.160	-0.024	-0.016	0.038	0.105	0.101	0.071	-0.017	0.207	1	0.231*
<b>Years</b>	0.034	0.061	0.092	0.046	0.112	0.209*	-0.056	0.076	0.117	0.157	0.365**	0.369**	-0.514**	0.738**	0.217*	1

Pearson's product-moment correlations below diagonal

Spearman's rho correlations above diagonal

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

**Variables:**

Gender: 1 if male, 0 if female.

CPA: 1 if participant is a CPA, 0 otherwise.

Firm: 1 if participant is employed at a Big 4 firm, 0 otherwise.

Rank: Participant's level in firm: 3 if partner, 2 if manager, 1 if in-charge, 0 if staff.

Fraud: 1 if participant has directly participated in an audit that eventually detected financial statement fraud committed by client management, 0 otherwise.

Years: Participant's years of auditing experience.

T1-T5: See Table 2-4.

See Table 2-5 for all other variable definitions.

**Table 2-7: Regression Results**

$$\text{Model 1: Trust} = \beta_0 + \beta_1 \text{Version} + \varepsilon$$

$$\text{Model 2: Risk} = \beta_0 + \beta_1 \text{Trust} + \varepsilon$$

$$\text{Model 3: Risk} = \beta_0 + \beta_1 \text{Version} + \beta_2 \text{Trust} + \varepsilon$$

<b>Variable</b>	<b>Model 1 Coefficient<sup>a</sup> (p-value)<sup>b</sup></b>	<b>Model 2 Coefficient<sup>a</sup> (p-value)<sup>b</sup></b>	<b>Model 3 Coefficient<sup>a</sup> (p-value)<sup>b</sup></b>
Trust		-0.554 (<0.001)	-0.546 (<0.001)
Version	0.736 (<0.001)		-0.012 (0.931)
Adjusted R <sup>2</sup>	0.537	0.299	0.291

<sup>(a)</sup> Standardized coefficients are reported.

<sup>(b)</sup> P-value is two-tailed because of the exploratory nature of this study.  
See Table 2-5 for variable definitions

### **CHAPTER 3:**

#### **Does Moral Reasoning Affect Auditors' Trust in a Client's Management?**

#### **INTRODUCTION**

The function of an audit is to provide an objective, third-party review of a company's financial statements (Messier et al. 2006). However, the value of an audit depends on stakeholders' (e.g. creditors and investors) perceptions of the independence and objectivity of the auditor. Any decision or behavior that may lead to an impairment of independence or objectivity should be considered unethical. The recent accounting scandals provide examples of lapses in auditors' ethical judgments involving their objectivity and independence. In a Wall Street Journal article published shortly after the Enron fiasco, Herrick and Barrionuevo (2002) raise the question of whether the close relationship between Enron and their auditor, Arthur Andersen, affected Andersen's ability to objectively review Enron's financial statements. Johnstone et al. (2001) suggest that an interpersonal relationship between the auditor and client is a threat to independence and some believe that as the auditor-client relationship lengthens trust may replace the auditor's objectivity (Latham et al. 1998). These beliefs indicate excessive trust in a client's management might be unethical because it may impair an auditor's objectivity and professional skepticism. Therefore, we expect an auditor's decision to trust a client's management is, at least in part, an ethical judgment.

One way individuals make ethical judgments is through the use of justice-based concepts. Kohlberg (1969) developed a justice-based model of moral reasoning which has been used for research in a variety of disciplines (e.g. education, marketing, psychology). The research demonstrates that individuals' moral reasoning affects their decisions and behaviors (see Rest et al. 1999a). In accounting settings, researchers find accountants with higher levels of moral reasoning generally make more ethical decisions and behave in a more ethical manner (e.g. Ponemon 1992; Tsui and Gul 1996). This study examines whether the decision to trust a client's management, and the extent to which to trust them, is affected by moral reasoning.

This paper reports the results of a case completed by 126 Certified Public Accountants (CPAs). The results of Analysis of Variance indicate that CPAs' trust in the client's management is affected by their level of moral reasoning. Specifically, we find that CPAs with relatively higher moral reasoning have less trust in management than CPAs with relatively lower moral reasoning. While this study can not determine whether it is appropriate to trust a client's management or to what extent they should be trusted, it does contribute to the accounting ethics literature by showing that the decision to trust a client, and more importantly, the extent to which to trust them, is at least in part, an ethical decision.

The remainder of this paper is organized into four sections. We first discuss the prior literature and state our research hypothesis. The second section describes our research methods and the third presents our results. We conclude with a summary of our research findings and a discussion of the study's limitations and implications.

## **PRIOR LITERATURE**

### **Trust**

Consistent with Kerler and Killough (2005), we utilize the framework of trust from Nooteboom (1996) and adopted by Das and Teng (2001) because of its adaptability to an auditing context. In this framework, an individual's trust in another person or group consists of two dimensions. The first, competence trust, refers to the trust an individual may have in another's ability to perform, while the second, goodwill trust, refers to the trust in another's



intentions to perform (Nooteboom 1996, 990).<sup>18</sup> We control for competence trust, as it is not of primary interest in this study. Goodwill trust, hereafter simply referred to as trust, is the focus in this study and is defined in an auditor-client context as an auditor's belief in the management's good intentions, honesty, dependability, helpfulness, etc. To our knowledge, Kerler and Killough (2005) is the only study to specifically measure and examine whether auditors develop trust in a client's management. Utilizing a scale developed to measure an auditor's trust in management, the authors find that a positive, overall satisfying experience working with the client's management during prior audit engagements leads to higher levels of trust in the management compared to a negative, overall unsatisfying experience.

Although auditors are required to maintain their objectivity (AICPA 1997), some believe that mutual trust may develop between the auditor and client as they become more familiar with each other and this trust may replace the auditor's necessary professional skepticism (Latham et al. 1998). Further, Johnstone et al.'s (2001) framework for independence risk posits that an interpersonal relationship between the auditor and client is an incentive for impaired independence. Presumably then, the trust that may develop from the relationship would also be a threat to the auditor's independence. These beliefs indicate that too much trust in a client's management may be unethical because it could impair an auditor's objectivity and professional skepticism. This suggests an auditor's decision to trust a client's management, and more importantly, the extent to which to trust them, is an ethical issue. This study examines whether a CPA's trust in the client's management is affected by his or her level of moral reasoning.

### **Moral Reasoning**

At the heart of moral reasoning research is the question of how and why individuals make decisions when an ethical dilemma presents itself.<sup>19</sup> Based on the work of the child psychologist Piaget, Lawrence Kohlberg (1969) developed a justice-based model of moral reasoning that consists of a series of three cognitive levels, with each level containing two stages (see Table 3-1). According to Kohlberg, individuals develop sequentially through this model one stage at a time. An individual's ethical reasoning process in the first level, preconventional level, revolves

---

<sup>18</sup> A distinction between a competence component and one or more goodwill components has also been made by other researchers (e.g., Kee and Knox 1970; Lieberman 1981; Ganesan 1994; Mayer et al. 1995).

<sup>19</sup> Hereafter, ethical reasoning is used interchangeably with moral reasoning.

around punishment and self interest. In the conventional level, the second level, reasoning is influenced by wanting to please others, such as peers or the law. In the final level, postconventional level, an individual's reasoning involves individual rights, self-chosen principles, and belief in ideals such as equality and justice.

Research involving the ethical reasoning of accountants shows that for a wide variety of judgments and behaviors, higher moral reasoning accountants generally make more ethical decisions and act in a more ethical manner (e.g. Ponemon 1992; Ponemon and Gabhart 1993; Bernardi 1994; Windsor and Ashkanasy 1995; Tsui and Gul 1996). For example, Ponemon (1992) finds that auditors with low moral reasoning underreported audit time more severely than auditors with high moral reasoning. Windsor and Ashkanasy (1995) show that auditors with the highest moral reasoning were better able to resist the client's economic power, compared to groups of auditors with lower moral reasoning.

Excessive trust in a client's management may be unethical because it might impair an auditor's objectivity and professional skepticism. Based on the findings that auditors with higher moral reasoning make more ethical decisions and behave in a more ethical manner, we will test the following hypothesis (stated in alternative form):

Hypothesis: CPAs with higher moral reasoning will have less trust in the client's management than CPAs with lower moral reasoning.

## **METHODS**

### **Variables**

#### *The Defining Issues Test*

The Defining Issues Test (DIT), developed by James Rest (1979), measures an individual's moral reasoning "based on the premise that people at different levels of moral development interpret moral dilemmas differently, define the critical issues of the dilemmas differently, and have different intuitions about what is right in a situation" (Kaplan et al. 1997, 45-46). The DIT consists of three standard hypothetical moral dilemmas with each dilemma

followed by twelve statements of issues reflecting the different stages of moral reasoning.<sup>20</sup> Participants read the dilemma, make an action choice and then rank which of the given issues are important in their decision-making. The analysis of the DIT yields the individual's level of "principled" thinking (stages 5 and 6), hereafter called the P-score.<sup>21</sup> The P-score, which "summarizes the ranking data and is defined as the weighted sum of the ranked principled issues" (Thoma et al. 1991, 664), is calculated and transformed into a percentage ranging from 0 to 95. A "meaningless" score, or M-score, is also calculated and serves as an internal reliability check. These items "are written in a pretentious and lofty sounding [manner], but are really meaningless" (Rest 1993, 12-13). We follow Rest's (1993) recommendation to discard a participant's data if his/her M-Score is greater than three on the three-story DIT.<sup>22</sup> In order to test the hypotheses, a median split was performed on the P-scores to construct high- and low-moral reasoning groups.<sup>23</sup>

### *Trust*

Trust in the client's management is measured as the participant's mean response to the five-item trust scale developed by Kerler and Killough (2005).<sup>24</sup> Participants indicate the extent to which they agree or disagree with each item. Responses are on a seven-point Likert-type scale with anchors on each point ranging from 1 – "Strongly Disagree" to 7 – "Strongly Agree." Kerler and Killough (2005) report the measure is unidimensional with an Alpha reliability of 0.90. The five-item trust measure is presented in Table 3-2.

### **Sample**

This study utilizes CPAs to ensure all participants have a sufficient understanding of the auditing profession, auditing standards, and the complexities of the auditor-client relationship. Data were collected from attendees of an Accounting and Auditing Conference and by mailing

---

<sup>20</sup> We utilized the three-story DIT instead of the six-story version because of participant time considerations.

<sup>21</sup> The P-Score is considered a reliable and valid measure of cognitive moral development based on Kohlberg's model (see Rest 1993).

<sup>22</sup> A less stringent M-score cutoff value of greater than five has recently been recommended (Rest et al. 1999b). The results reported in this study utilizing the cutoff value of greater than three are qualitatively the same as the results obtained (not tabulated) utilizing the less stringent cutoff value of greater than five.

<sup>23</sup> The sample median has been a common cutoff in prior research (e.g., Ponemon 1992; Ponemon and Gabhart 1993; Kaplan et al. 1997).

<sup>24</sup> Kerler and Killough (2005) also utilized a single composite score (mean response) as their measure of trust.

experimental cases to contact partners at four accounting firms. One hundred fifty-five cases were collected at the conference and 45 were returned by the contact partners.<sup>25</sup> Of the 200 respondents, 19 were eliminated because P-scores could not be calculated due to incomplete DIT data, while another 19 were eliminated because they were not CPAs. Thirty-six were excluded for failing to meet the m-score cutoff described previously. The final sample consisted of 126 CPAs, of which, 78 (61.9 percent) and 48 (38.1 percent) were male and female, respectively. Sixty-nine (54.8 percent) CPAs indicated external auditing was part of their current professional duties, while 57 (45.2 percent) indicated otherwise. Participants had an average of 14.04 years of experience in their current profession (standard deviation of 9.04), ranging from one to 54 years. When testing the hypothesis, an additional 21 participants were excluded from the analysis because they scored the median P-score (33.33). This was done to avoid arbitrarily assigning the participants to either the high or low moral reasoning groups.<sup>26</sup>

## **Instrument**

The experimental case (see Appendix B), created by Kerler and Killough (2005), requires participants to read background information about a fictitious audit client, XYZ Corporation, and then respond to a series of questions. The overall task for participants is to assess the risk of management fraud. The first section of the instrument instructed the participants to assume the role of a supervising auditor and contains a description of the planning phase of the prior year's audit. Participants were told that last year was their first time auditing XYZ, their firm's fourth year. They were also provided a description of XYZ's management and operations. Here, to control for competence trust, numerous cues were presented indicating XYZ's management was very competent and highly qualified to make decisions and to prepare financial statements. The section concludes by informing the participants that last year they assessed the risk of management fraud as medium, based on a five-point scale.

The second section of the instrument described the results of last year's audit in one of two ways. The positive version described an overall satisfying experience working with XYZ's

---

<sup>25</sup> Contact partners distributed the cases to participants of their choosing, collected the cases, and mailed them back to one of the authors. The 45 returned from contact partners represented a 75 percent response rate, which is on par with previous accounting research utilizing contact partners (e.g. Asare et al. 2000 – 78.6 percent; Taylor 2000 – 74 percent).

<sup>26</sup> These 21 CPAs are included in all analyses that did not involve moral reasoning (e.g. manipulation checks).

management during the prior audit engagement while the negative version described an overall unsatisfying experience (see Table 3-3). Kerler and Killough (2005) find that this manipulation leads to different levels of trust in the client's management. Specifically, the positive version leads to a relatively high level of trust while the negative version results in a relatively low level of trust. This manipulation will allow us to test the robustness of our results across two different levels of trust. Stated differently, the manipulation allows us to test whether moral reasoning affects participants' trust regardless whether they have a relatively high or low level of trust in the client's management. The third section of the instrument provided information pertaining to the planning phase of the current year's audit. Here participants were told that XYZ's management and operations were the same as last year.

The final section of the instrument required participants to respond to a series of questions. CPAs were first asked to assess the risk of management fraud for the current year based on a five-point scale with anchors at 1 – "Very Low Risk," 3 – "Medium Risk," and 5 – "Very High Risk." Participants then evaluated the competency of XYZ's management by indicating, on a seven-point Likert-type scale with anchors at each point (1 – "Strongly Disagree," 2 – "Disagree," 3 – "Slightly Disagree," 4 – "Neither Agree nor Disagree," 5 – "Slightly Agree," 6 – "Agree," 7 – "Strongly Agree"), their agreement to the following statement: "XYZ's management is competent." The next item required CPAs to indicate their agreement, on the same seven-point scale described above, to an item stating "I am satisfied with my experience with XYZ Corporation's management." Lastly, participants responded to the five trust items, provided demographic data, and completed the DIT.

## **RESULTS**

### **Preliminary Analysis**

The purpose of the experimental manipulation was to create two groups of participants, one with relatively high trust in the client's management and one with relatively low trust. This was done by manipulating participants experience working with the client during previous audit engagements as either a positive, overall satisfying experience, or a negative, overall unsatisfying experience. The mean level of trust for participants in the high and low trust groups was 4.76 and 2.95, respectively. This difference is statistically significant ( $p < 0.001$ ) and

suggests the manipulation had the desired effect of creating two groups of CPAs with different levels of trust – one with relatively high trust and one with relatively low trust. This allows us to test the robustness of moral reasoning’s effect on trust across two different levels of trust.

As discussed, we controlled the competence level of the client’s management as high. To verify this control, participants were asked to indicate, on a seven-point scale, their agreement to an item stating the client’s management was competent. The mean level of agreement to this item was 5.85, which is significantly different ( $p < 0.001$ ) from the midpoint of 4.00. The mean agreement for this item was 5.88 for the negative group and 5.82 for the positive group. This difference is not statistically significant ( $p = 0.759$ ), thus suggesting our previous experience manipulation did not inadvertently affect the participants’ perceptions of management’s competence.

The last stage of our preliminary analysis was to confirm the dimensionality and reliability of the five-item trust scale. A confirmatory factor analysis indicated that the five trust items loaded on a single factor that explained over 66 percent of the variance. The factor loadings for items one through five were 0.83, 0.92, 0.68, -0.79, and 0.84, respectively. Further, the five items had a Cronbach’s Alpha of 0.87. Together, this suggests the trust scale is reliably measuring a unitary construct.

## **Main Analysis**

We hypothesize that CPAs with higher moral reasoning will have less trust in the client’s management than CPAs with lower moral reasoning. To test this we performed a 2x2 Analysis of Variance (ANOVA) with the experimental version (positive or negative) and moral reasoning (high or low) as the independent variables and trust as the dependent variable. Table 3-4 displays the results of the ANOVA as well the means for each group. As shown in the ANOVA, CPAs ethical reasoning affects their trust ( $p = 0.014$ ). Specifically, CPAs with relatively higher moral reasoning trusted the client’s management less than CPAs with relatively lower moral reasoning.<sup>27</sup> The difference between the mean trust of high moral reasoning participants (3.65)

---

<sup>27</sup> We also performed a regression with experimental version and CPA’s p-score (continuous) as the independent variables and trust as the dependent variable. The results of the regression indicate a negative and significant

and low moral reasoning participants (4.18) represents a 0.42 effect size.<sup>28</sup> An inspection of the means within each version suggests that the effects of moral reasoning may be stronger for the group with relatively low trust (negative version). The difference between the means of high (2.64) and low (3.13) moral reasoning CPAs in the group with relatively low trust translates to a 0.59 effect size while the difference between the means of high (4.62) and low (4.87) moral reasoning CPAs in the group with relatively high trust represents a 0.29 effect size. However, the insignificant interaction ( $p = 0.477$ ) indicates there is no statistical evidence that these effects are different, and therefore suggests that ethical reasoning affects trust at both relatively high and relatively low levels of trust.

### **Supplemental Analysis**

We tested whether auditors' trust was affected by the demographic control variables of gender, current profession (auditor or other CPA), and years of experience in their current profession. Gender was examined by performing a 2x2x2 ANOVA with version, moral reasoning, and gender as the independent variables and trust as the dependent variable. Neither gender's main effect, nor any of its interactions were statistically significant ( $p > 0.10$ ). Current profession was also examined with a 2x2x2 ANOVA with version, moral reasoning, and current profession as the independent variables and trust as the dependent variable. Like gender, neither current profession's main effect, nor any of its interactions were statistically significant ( $p > 0.10$ ). To investigate whether participants' years of experience affected their trust, we ran a 2x2 Analysis of Covariance with version and moral reasoning as the independent variables, years of experience as the covariate, and trust as the dependent variable. CPAs' years of experience did not significantly affect their trust ( $p > 0.10$ ). Furthermore, in each of the three tests, moral reasoning's main effect remained statistically significant ( $p < 0.05$ ).

---

relationship between p-score and trust ( $p = 0.013$ ). This suggests, consistent with the results of the ANOVA, that CPAs with higher levels of moral reasoning have less trust in the client's management.

<sup>28</sup> Effect sizes reported are based on Cohen's  $d$  (Cohen 1988). These are calculated as the difference in means for the two groups, divided by their pooled standard deviation which is computed as the square root of the average of the squared deviations. Cohen (1988) loosely defined effect sizes of 0.20, 0.50, and 0.80 as small, medium, and large, respectively.

## **DISCUSSION**

This study sought to investigate whether the decision to trust a client's management, and the extent to which to trust them, is affected by an individual's level of moral reasoning. The results of an experimental case completed by 126 Certified Public Accountants indicate that a CPA's trust in a client's management is affected by their moral reasoning. We find that CPAs with relatively higher ethical reasoning trust management less than CPAs with relatively lower levels of ethical reasoning. Also, the effect of ethical reasoning on trust is robust across two different levels of trust – relatively high and relatively low.

Like other studies conducted in an artificial setting, we acknowledge that this study has limitations. The trusting bond that develops during actual audit engagements may be stronger than our experimental manipulation. Future research may wish to test the robustness of our findings utilizing cases designed to create even stronger auditor-client bonds. Also, this study focused on how moral reasoning affects trust. Future work could investigate what other factors, individual and organizational, affect an individual's trust. For example, does the overall ethical culture of an individual's firm affect his or her trust? Lastly, although we attempted to collect data from a diverse group of CPAs, future research may look to replicate our findings with different samples and under different conditions.

This study contributes to the accounting ethics literature by showing that the decision to trust a client's management, and more importantly, the extent to which to trust them, is at least in part an ethical decision. While this study can not determine whether it is appropriate for an auditor to trust a client's management or to what extent they should be trusted, the results suggest that because the decision is an ethical one, trust beyond some level would be considered unethical. We posit that excessive trust in the client's management may be unethical because it could affect an auditor's objectivity and professional skepticism.



## REFERENCES

- American Institute of Certified Public Accountants (AICPA). 1997. *Code of Professional Conduct*. New York: AICPA.
- Asare, S., G. Trompeter, and A. Wright. 2000. The effect of accountability and time budgets on auditors' testing strategies. *Contemporary Accounting Research* 17 (Winter): 539-560.
- Bernardi, R. A. 1994. Fraud detection: the effect of client integrity and competence and auditor cognitive style. *Auditing: A Journal of Practice and Theory* 13 (Supplement): 68-84.
- Cohen, J. 1988. *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Das, T., and B. Teng. 2001. Trust, control, and risk in strategic alliances: An integrated framework. *Organization Studies* 22 (2): 251-283.
- Ganesan, S. 1994. Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing* 58 (April): 1-19.
- Herrick, T., and A. Barrionuevo. 2002, January 21. Were auditor and client too close-knit? Wall Street Journal p. C1.
- Johnstone, K. M., M. H. Sutton, and T. D. Warfield. 2001. Antecedents and consequences of independence risk: Framework for analysis. *Accounting Horizons* 15 (1): 1-18.
- Kaplan, S. E., K. J. Newberry, and P. M. J. Reckers. 1997. The effect of moral reasoning and educational communications on tax evasion intentions. *The Journal of the American Taxation Association* 19 (2): 38-54.
- Kee, H., and R. Knox. 1970. Conceptual and methodological considerations in the study of trust and suspicion. *The Journal of Conflict Resolution* 14 (3): 357-366.
- Kerler, W. A. III, and L. N. Killough. 2005. Trusting the client's management: Do auditors develop trust and does it affect fraud risk assessments? *Dissertation Working Paper (Chapter 2)*. Virginia Tech.
- Kohlberg, L. 1969. Stages and sequences: The cognitive developmental approach to socialization. In D. Goslin (Ed.), *Handbook of Socialization Theory and Research* (pp. 347-480). Chicago: Rand McNally.
- Latham, C., F. Jacobs, and P. Roush. 1998. Does auditor tenure matter? *Research in Accounting Regulation* 12: 165-177.
- Lieberman, J. 1981. *The Litigious Society*. New York: Basic Books.

- Mayer, R., J. Davis, and F. Schoorman. 1995. An integrative model of organizational trust. *Academy of Management Review* 20: 709-734.
- Messier, W. F. Jr., S. M. Glover, and D. F. Prawitt. 2006. *Auditing & Assurance Services: A Systematic Approach 4<sup>th</sup> edition*. New York: McGraw-Hill Irwin.
- Nooteboom, B. 1996. Trust, opportunism and governance: A process and control model. *Organization Studies* 17 (6): 985-1010.
- Ponemon, L. A. 1992. Auditor underreporting of time and moral reasoning: An experimental lab study. *Contemporary Accounting Research* 9 (1): 171-189.
- Ponemon, L. A., and D. R. L. Gabhart. 1993. *Ethical reasoning in accounting and auditing*. Vancouver: Canadian Certified General Accountants' Research Foundation.
- Rest, J. R. 1979. *Development in Judging Moral Issues*. Minneapolis, MN: University of Minnesota.
- Rest, J. R. 1993. *Guide for the defining issues test -- How to use the optical scan forms and the center's scoring service*. Minneapolis, MN: University of Minnesota.
- Rest, J. R., D. Narvaez, M. J. Bebeau, and S. J. Thoma. 1999a. *Postconventional Moral Thinking: A Neo-Kohlbergian Approach* (4th ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Rest, J. R., D. Narvaez, S. J. Thoma, and M. J. Bebeau. 1999b. DIT2: Devising and testing a revised instrument of moral judgment. *Journal of Educational Psychology* 91 (4): 644-659.
- Taylor, M. 2000. The effects of industry specialization on auditors' inherent risk assessments and confidence judgments. *Contemporary Accounting Research* 17 (Winter): 693-712.
- Thoma, S. J., J. R. Rest, and M. L. Davison. 1991. Describing and testing a moderator of the moral judgment and action relationship. *Journal of Personality and Social Psychology* 61 (4): 659-669.
- Tsui, J. S. L., and F. A. Gul. 1996. Auditors' behaviour in an audit conflict situation: A research note on the role of locus of control and ethical reasoning. *Accounting, Organizations and Society* 21 (1): 41-51.
- Windsor, C. A., and N. M. Ashkanasy. 1995. The effect of client management bargaining power, moral reasoning development, and belief in a just world on auditor independence. *Accounting, Organizations and Society* 20 (7/8): 701-720.

**FIGURES AND TABLES**

<b>Table 3-1: Kohlberg’s Six Stage Model of Moral Reasoning</b>	
<b>Preconventional Level</b>	
<i>Stage 1:</i>	<i>Obedience and Punishment Orientation</i> -- At this stage punishment or harm determines what is right or wrong.
<i>Stage 2:</i>	<i>Naively Egoistic Orientation</i> -- At this stage an individual acts to serve his/her own interests.
<b>Conventional Level:</b>	
<i>Stage 3:</i>	<i>Good-Boy (or Good-Girl) Orientation</i> -- At this stage one strives to be a good person in the eyes of others. Good behavior is that which pleases others
<i>Stage 4:</i>	<i>Authority and Social-Order Maintaining Orientation</i> -- At this stage there is an orientation towards obeying authority and maintaining the social order.
<b>Postconventional Level:</b>	
<i>Stage 5:</i>	<i>Contractual Legalistic Orientation</i> -- At this stage the right action tends to be defined in terms of general individual rights, not necessarily what is agreed upon by society.
<i>Stage 6:</i>	<i>Conscience or Principle Orientation</i> -- At this stage one follows self-chosen ethical principles. There is a belief in ideals such as justice and equality.
<i>Adopted from Kohlberg (1969)</i>	

**Table 3-2: Trust Scale Items**

<b>Item</b>	
<b>Abbreviation</b>	<b>Item</b>
T1	I believe that XYZ Corporation's management are thoroughly dependable people.
T2	XYZ Corporation's management will do everything possible to help me.
T3	XYZ Corporation's management are like my friends.
T4	I do not think that XYZ Corporation's management is completely open in dealing with me. (R)
T5	XYZ Corporation's management plans to be helpful during future audits.

(R) – denotes negatively worded item  
Participant responses on a seven-point, Likert-type scale with anchors at each point (1: strongly disagree, 2: disagree, 3: slightly disagree, 4: neither agree nor disagree, 5: slightly agree, 6: agree, and 7: strongly agree).

*Source: Kerler and Killough (2005)*

### **Table 3-3: Prior Audit Engagement Manipulations**

*Positive Audit Engagement:* overall satisfying experience working with client's management

“During the audit work, XYZ's management always had a respectful attitude and never engaged in disputes with you. They always appeared to be well prepared for your meetings. When you were on location, you often joined them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment and XYZ's management made it without hesitation. The end result of the audit was an unqualified opinion for XYZ's financial statements.”

*Negative Audit Engagement:* overall unsatisfying experience working with client's management

“During the audit work, XYZ's management had a hostile attitude and frequently engaged in disputes with you. They never appeared to be well prepared for your meetings. When you were on location, you were never invited to join them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment. XYZ's management put off responding to your proposed adjustment until you mentioned it again a few days later. At this point they refused to make the adjustment. Because your proposed adjustment did not materially affect the financial statements, the end result of the audit was an unqualified opinion for XYZ's financial statements.”

*Source: Kerler and Killough (2005)*

**Table 3-4: ANOVA Results for the Effect of Moral Reasoning on Auditors' Trust**

*Dependent variable is auditors' trust in the client's management*

<u>Source of Variance</u>	<u>df</u>	<u>Mean Square</u>	<u>F-statistic</u>	<u>p-value<sup>a</sup></u>
Version (V)	1	87.623	126.947	<0.001
Moral Reasoning (MR)	1	3.473	5.031	0.014
V*MR	1	0.351	0.509	0.477
Error	101	0.690		
Adjusted R <sup>2</sup> = 0.56				

**Means (Std. Dev.)**

<u>Version</u>	<u>Moral Reasoning</u>		<u>Total</u>
	<u>High</u>	<u>Low</u>	
Positive	4.62 (1.00) n=24	4.87 (0.69) n=35	4.77 (0.83) n=59
Negative	2.64 (0.84) n=23	3.13 (0.82) n=23	2.89 (0.86) n=46
Total	3.65 (1.35) n=47	4.18 (1.13) n=58	n=105

<sup>(a)</sup> P-values are one-tailed for main effects and two-tailed for the interaction.

Variables

Trust: Participant's mean response to Kerler and Killough's (2005) five-item trust scale (see Table 3-2).

Version: experimental case completed – 1 if positive, overall satisfying experience working with the client's management; 0 if negative, overall unsatisfying experience.

Moral reasoning: 1 if participant had high moral reasoning (p-score above sample median); 0 if low moral reasoning (p-score below sample median)

**CHAPTER 4:**  
**The Effects of Trust, Client Importance, and Goal Commitment on Auditors' Acceptance  
of Client-Preferred Methods**

**INTRODUCTION**

The primary role of auditing is to provide an objective third-party review of the financial statements (Messier et al. 2006). The highly publicized accounting scandals in recent years have tarnished the auditing profession's reputation (e.g. Tie 2002; Reynolds 2003). At the forefront of many of these scandals is the issue of whether the auditors were truly independent. Independence is a quality considered by many to be the cornerstone of the auditing profession because without it, public trust is lost. Threats to independence that affect audit decisions may lead to reduced audit quality which may result in inappropriate financial reporting. The discovery of inappropriate reporting can affect all stakeholders. For example, it may cause a decrease in the value of shareholder and creditor interests, an increase in the cost of capital for the client, a reputational loss for auditors and the profession, and an increase in costs for regulators to restore investor confidence (Johnstone et al. 2001). The goal of this study is to investigate what threats to independence may affect audit decisions.

Johnstone, Sutton, and Warfield (2001), hereafter JSW, propose a framework for understanding the antecedents and consequences of impaired independence. The framework, oft-

referenced in recent literature (e.g. Chang and Hwang 2003; Kadous et al. 2003), is the most comprehensive framework of auditor independence to date. JSW theorize that independence may become impaired if auditor incentives are present and this impaired independence may affect audit decisions if the auditor is making an ambiguous decision. One of the most often cited incentives for impaired auditor independence is the economic dependence on the client (e.g. Firth 1980; Farmer et al. 1987; Chang and Hwang 2003), typically discussed in terms of revenue from audit and/or nonaudit services. It is argued, and supported by prior auditing research (e.g. Lord 1992; Chang and Hwang 2003), that as auditors become more financially dependent upon a client, they are more likely to acquiesce to client pressures. Another incentive commonly cited relates to the interpersonal relationship that develops between auditor and client. It has been suggested that as the bond develops, trust may replace auditors' professional skepticism (e.g. Latham et al. 1998). Kerler and Killough (2005) provide support for this notion. They find that auditors do develop trust in a client's management and this trust can affect their fraud risk assessment. This study simultaneously examines the effects of the financial importance of the client and auditors' trust on audit decisions.

While JSW's framework predicts audit decisions may be affected by auditor incentives, prior research in psychology and auditing (e.g. Kadous et al. 2003) suggest the effects may be mediated by auditors' commitment to their directional goals, such as the goal of supporting the client-preferred method. Specifically, this work indicates that incentives may actually affect auditors' commitment to their goals, which in turn affects audit decisions. Combining JSW's framework for impaired independence and the construct of directional goal commitment, this study examines if the two incentives affect auditors' commitment to their directional goal of supporting the client preferred method and whether this goal commitment affects auditors' decisions.

This study reports the results of an experimental case completed by 68 professional auditors. The overall task in the case was to assess the acceptability of an audit client's preferred method of recognizing revenue for a unique contract in their financial statements. Auditors received one of four experimental cases created by the manipulations of two incentives. The case manipulated the participants' trust in the client's management (high or low) and the financial



importance of the client to the local office of the audit firm (high or low). The results of structural equation modeling indicate that auditors' trust in the client's management is positively related to their commitment to the goal of supporting the client's preferred method of recognizing revenue. However, the results did not identify a relationship between the importance of the client and auditors' goal commitment. The results also show that auditors' goal commitment is positively associated to their acceptability assessments. Together, the results suggest that auditors who develop trust in a client's management may be more likely to accept the client's reporting decisions.

This study contributes to the auditing literature by demonstrating the important role auditors' trust in a client's management plays in their audit decisions. The current research also contributes to the literature by testing and extending JSW's independence framework. Specifically, this research tests the framework by simultaneously examining multiple components (direct and indirect incentives). This research extends JSW's work by identifying an important mediating construct, goal commitment, which is not included in the original framework. Together, this study provides a more complete picture of how incentives can affect auditor decisions.

The remainder of this study is organized as follows. Section two discusses the relevant literature and states the hypotheses. The third section describes the methodology, including the participants, experimental case, and variables. Section four presents the results. Finally, the concluding section discusses the contributions, implications and limitations of the current research, and suggests potential avenues for future research.

## **PRIOR LITERATURE**

### **Framework of Impaired Independence**

JSW propose a framework for understanding the antecedents and consequences of independence risk. Independence risk is defined by the authors as "the risk that an auditor's independence may be compromised or may be perceived to be compromised" (Johnstone et al. 2001, 1). The framework discusses two necessary environmental conditions for an auditor's independence to potentially become impaired and affect the actual or perceived quality of the

audit: incentives and a judgment-based decision. JSW divide incentives into two groups: direct and indirect incentives. Direct incentives involve the receipt or loss of an actual or potential monetary benefit to the auditor. This includes investments in the client's securities, contingent fees, potential employment, and financial dependence. Financial dependence incorporates the source and magnitude of fees, lowballing effects, and the reputational value of maintaining a successful relationship with a client. Indirect incentives involve other circumstances that may test an auditor's ability to maintain their objectivity. These occur when an auditor has an interpersonal relationship with the client or the auditor audits their own work or the work of their firm.

While incentives may increase the risk of impaired independence, these alone may not affect the actual or perceived quality of the audit. Another necessary condition is a judgment-based decision, which is a decision with uncertainty regarding the appropriate judgment the auditor should make. "Without a judgment-based decision, no mechanism other than compromised integrity enables an auditor's incentive to result in reduced audit quality" (Johnstone et al. 2001, 6). Judgment-based audit decisions can be divided into three broad categories: difficult accounting issues, materiality judgments, and audit-conduct decisions. Difficult accounting issues have alternative interpretations, such as an issue that is ambiguous or nonauthoritatively defined. An auditor's materiality judgment refers to the threshold with which he or she believes an item would not influence a financial statement user's decision. Audit-conduct decisions involve the nature and scope of the audit procedures.

JSW suggest research should investigate incentives that have received little research attention, for instance personal relationships, despite the fact that these are likely to be as important as other more researched incentives such as financial dependence. Further, the authors suggest the simultaneous examination of multiple components of the framework. Following these two suggestions, this research tests the effects of one direct incentive (financial importance of the client to the local office) and one indirect incentive (trust in the client) on auditors' judgment of a difficult accounting issue (ambiguous revenue recognition method).

In short, JSW's framework proposes that audit decisions may be affected by impaired independence if incentives to the auditor are present and the auditor is making a judgment-based decision. Previous psychology and auditing research, however, suggest that the effects of incentives on audit decisions may actually be mediated by another construct, the auditor's commitment to directional goals. For example, incentives have a direct effect on the auditor's commitment to directional goals, which in turn has a direct effect on the audit decision. Stated differently, incentives have an indirect effect on audit decisions.

### **Commitment to Directional Goals**

Directional goals, the goal of arriving at a particular conclusion, can bias an individual's judgment and decision process (Kunda 1999). Directional goals can bias the information (or evidence) gathered in the reasoning process, the depth of information processing, and the manner in which the information is combined to support the preferred conclusion (e.g. Ditto and Lopez 1992; Lundgren and Prislin 1998). Previous auditing research indicates that, in some cases, auditors' have the directional goal of supporting the client's preferred methods (e.g. Hackenbrack and Nelson 1996; Haynes et al. 1998). While directional goals can bias an individual's judgment, they will not blind him or her to reality (Kunda 1999). The desired conclusion will be drawn, only if it can be justified. In other words, an individual will make the preferred judgment while maintaining an "illusion of objectivity" (Pyszczynski and Greenberg 1987). This is supported by findings in auditing research that suggest auditors are more likely to accept the clients preferred position when guidelines are ambiguous regarding the appropriate accounting treatment (e.g. Trompeter 1994; Nelson and Kinney 1997; Salterio and Koonce 1997; Braun 2001; Hronsky and Houghton 2001).

In one recent study, Kadous et al. (2003) investigate the role of commitment to directional goals in an ambiguous audit decision. They find that auditors' commitment to their directional goals of supporting the client-preferred method can affect their decision regarding the acceptance and appropriateness of the client's method. Auditors with higher levels of goal commitment are more likely to accept the client-preferred method and rate it as more appropriate. The authors expect that these goals arise from social and monetary incentives, which are analogous to indirect and direct incentives following JSW's framework. Based on these

findings, this paper tests whether the presence of direct and indirect incentives (financial importance of the client to the local office and trust in the client, respectively) affects auditors' commitment to their directional goals of supporting the client-preferred method. Further, this research explores whether auditors' commitment toward this goal affects their decision regarding a difficult accounting issue involving an ambiguous revenue recognition method.

## **Incentives**

### *Financial Importance of the Client (Client Importance)*

One of the direct incentives discussed by JSW is the financial importance of the client, which includes the magnitude of the fees, to the audit firm, office, or individual.<sup>29</sup> Research investigating the effect of client importance on auditor independence can be divided into two categories: independence in appearance and independence in fact. Studies examining the impact of client importance on the appearance of auditor independence seek to identify whether various financial statement user groups perceive the auditor to lack independence. In general, this stream of research finds that when audit firms, or individual offices within a firm, receive a significant portion of their revenues from a single client, financial statement users perceive a potential impairment of independence. Research has confirmed this effect in the perceptions of loan officers (e.g. Lowe and Pany 1995; Bartlett 1993; Gul 1991) financial analysts (e.g. Firth 1980; Beattie et al. 1999); jurors (e.g. Brandon and Mueller 2005), and accountants in industry (e.g. Teoh and Lim 1996; Iyer and Rama 2004).

While research supports the concept that financial statement users perceive the financial importance of a client impairs an auditor's objectivity, less research has focused on whether the client's importance does in fact impair an auditor's independence. Farmer et al. (1987) hold the importance of the client constant at eight percent of local office fees and 32 percent of fees generated by the partner in charge. The results show the risk of losing the client influences auditors' acceptance of a novel accounting approach proposed by the client. Lord (1992) finds the relative revenue contribution of the client to the audit firm (significant or moderate) influences auditors' acceptance of the client's aggressive reporting position. In addition, Chang and Hwang (2003) show that auditors are more willing to allow a client's aggressive reporting

---

<sup>29</sup> "Client importance" is used interchangeably with "financial importance of the client" throughout this paper.

practices when the client's business risk is medium and the client retention incentives are high. The manipulation for high client retention incentives included three statements, one of which indicated the client was one of the major audit clients of the local office and also engaged in non-audit services. Finally, utilizing archival data from actual audit engagements, Wright and Wright (1997) find a positive relationship between the size of the client and the likelihood an adjustment was waived by the auditor.<sup>30</sup>

Taken together these studies of independence in fact indicate that the relative financial importance of the client may impair an auditor's independence and influence their audit judgments and decisions. However, based on Kadous et al's (2003) findings, this paper expects audit decisions to be affected by auditors' commitment to their directional goals of supporting the client-preferred method. As suggested by Kadous et al. (2003), auditors' goal commitment should be affected by the financial importance of the client. Therefore, this study hypothesizes that the more important a client is to the auditor, the more committed auditors will be to supporting the client's preferred method. See Figure 4-1 for graphical depiction of H1 and all other hypotheses.

H1: The financial importance of the client is positively related to the auditor's goal commitment.

### *Trust*

JSW propose that an interpersonal relationship between an auditor and the client may be an indirect incentive for impaired auditor independence. This study examines whether the trust developed from this relationship will ultimately affect the auditor's judgment. Following the framework of trust from Nooteboom (1996) and Das and Teng (2001), an individual's trust in another person or group consists of two dimensions: competence trust and goodwill trust. In an auditing context, competence trust refers to an auditor's belief regarding the client's ability to make management decisions and accurately prepare their financial statements; while goodwill trust refers to an auditor's belief in the client's good intentions, honesty, dependability,

---

<sup>30</sup> An alternative explanation to the importance of the client having an effect is that larger clients have better internal controls and therefore "the likelihood of any additional material undetected errors is lower when controls are strong" (Wright and Wright 1997, 33).

helpfulness, etc. Competence trust will be controlled for, as it is not of primary interest in this study. Goodwill trust is the dimension of interest in this study and will hereafter be referred to simply as trust. With the exception of one study, no previous auditing research has explicitly measured and examined the effect of trust on auditors' decisions. Kerler and Killough (2005), utilizing a scale they developed to measure an auditor's trust in the client's management, find that auditors do develop trust in the client's management as a result of past interactions. Further, they find that trust can affect the auditor's fraud risk assessments.

Another stream of research has investigated the effect an auditor's beliefs regarding the client's integrity has on audit decisions. The integrity of the client may affect an auditor's trust in that client, and therefore, may shed light on the potential effects of trust on auditor decisions. While some of the earlier research suggests auditors are insensitive to information pertaining to the integrity of the client (e.g. Kaplan and Reckers 1984; Bernardi 1994), most of the recent research indicates the client's integrity influences auditors' decisions (e.g. Peecher 1996; Goodwin 1999; Beaulieu 2001). For example, Peecher (1996) finds information concerning the integrity of the client affects auditors' acceptance of client explanations. Specifically, when the client's integrity is high auditors are more likely to accept the explanation.

Taken together, these studies suggest that auditors' judgments and decisions are influenced by their trust in the client's management. As suggested by Kadous et al. (2003) and consistent with the first hypothesis, auditors' trust should affect their goal commitment. Therefore, this study hypothesizes that the more auditors trust a client, the more committed auditors will be to supporting the client's preferred method.

H2: The auditor's trust in the client's management is positively related to the auditor's goal commitment.

### **Audit Decision**

The third hypothesis in this study examines how audit decisions are affected by the auditor's commitment to their directional goal of supporting the client-preferred method. As discussed previously, JSW propose that a judgment-based decision is a necessary condition for

impaired independence to affect the actual or perceived quality of the audit. The audit decision in this study involves an ambiguous revenue recognition issue. Auditors assess the acceptability of the client-preferred revenue recognition method for recognizing revenue in the financial statements. Based on Kadous et al.'s (2003) findings that auditors with higher levels of goal commitment are more likely to accept the client-preferred method and rate it as more appropriate, this study hypothesizes the following:

H3: The auditor's goal commitment will be positively related to the auditor's acceptability assessment.

## **METHODS**

An experimental design is utilized to test the hypotheses. Auditors were assigned to one of four treatment groups created by the manipulations of the financial importance of the client and the auditors' trust in the client. Their primary task was to assess the acceptability of the client-preferred method of financial reporting in an ambiguous revenue recognition scenario.

### **Participants**

Consistent with prior research utilizing a similar task (e.g. Kadous et al. 2003; Johnstone et al. 2002), senior-level auditors and above are the appropriate participant pool. Auditors from each Big-4 firm and six non-Big 4 firms participated in this study. Data were collected by mailing the experimental cases to contact partners. The partners provided the cases to participants of their choosing, who in turn completed the experiment and returned the case to the contact partner. The partners then mailed the cases back. Of the 122 instruments sent, 74 (60.7 percent) were returned, with responses from firms ranging from five to ten. Six participants were excluded from the analysis because the auditors indicated they were at the staff level (five) or because the auditor failed to indicate his/her position (one). Thus, the final analysis is based on the responses from 68 auditors.

Table 4-1 provides a number of descriptive statistics which show that 41 (60.3 percent) and 27 (39.7 percent) of the auditors were from Non-Big 4 firms and Big 4 firms, respectively. The participants include 32 (47.1 percent) seniors, 29 (42.6 percent) managers, and 7 (10.3

percent) partners. Forty-four (64.7 percent) auditors were male and 24 (35.3 percent) were female, with 61 (89.7 percent) being Certified Public Accountants. The participants had an average of 7.88 years of experience in assurance services and had an average indication of their experience resolving complex revenue recognition issues of 3.88, based on a seven-point scale ranging from 1 – “Not at all experienced” to 7 – “Extremely experienced.” Forty-one (60.3 percent) auditors have previously participated in or prepared for discussions with a client’s audit committee while 27 (39.7 percent) had not. Lastly, 32 (47.1 percent) participants received the high client importance manipulation, 36 (52.9 percent) completed the low importance case, 37 (54.4 percent) received the high trust manipulation, and 31 (45.6 percent) completed the low trust case.

### **Experimental Case and Procedures**

The experimental case (see Appendix C), adapted from Kadous et al. (2003)<sup>31</sup>, centers around a difficult accounting issue involving ambiguity as to the amount of revenue an audit client (Spacetech Satellite, Inc., or simply SPST) should recognize for a contract. The case includes instructions, client background information, and a description of the contract as well as the client-preferred method.<sup>32</sup>

The client background information describes the client’s company, audit history, management, and summary financial data. The information also contains the client importance and trust manipulations. Client importance is manipulated as high or low based on the amount of revenue the client represents compared to total office revenues. Participants’ trust in the client’s management is manipulated as high or low by varying the past auditing interactions between the auditor and client.

The contract creating the ambiguous revenue recognition issue requires the audit client to provide satellite communication services to a customer at specified hourly rates. However, to ensure the contract revenues will at least cover the operating costs associated with the services,

---

<sup>31</sup> The case utilized by Kadous et al. (2003) was adapted from Johnstone et al. (2002).

<sup>32</sup> Because the experimental case has been validated by previous research, extensive pilot testing of the instrument is not deemed necessary. However, a pilot study utilizing 102 upper-level and master-level accounting students was performed to ensure the clarity of instructions, salience of manipulations, and to gauge the length of time it takes to complete the case. No changes were made to the instrument as a result of the pilot study.



the contract includes a minimum annual fee. The one-year contract covers the period from the beginning of May 2004 through the end of April 2005. The client's fiscal year end is December 31. They are currently preparing the second quarter financial statements, ending June 30, 2004. The actual usage during the first two months of the contract and the expected usage through the end of 2004 are below the contractual minimum. The audit client prefers to utilize a straight-line method and recognize the minimum annual fee evenly across the 12-month period. The client's rationale for the straight-line method is that it is easily understood and any other method would defer more revenue into the first quarter of 2005, thus creating unrealistic earnings expectations for the last three quarters of 2005. The client-preferred method is an aggressive revenue recognition method compared to alternative methods. For example, the client-preferred method would recognize over \$24 million more revenue in 2004 than would a method based on actual usage – this difference is approximately 3.2% of current year revenues. The Big-6 firm that helped Johnstone et al. (2002) develop their case was unable to identify unambiguous professional guidance for this issue, as was Kadous et al. (2003).

Following the case, participants assessed the acceptability of the client-preferred straight-line method for recognizing revenue in the financial statements. The participants then responded to various questions that are utilized to test the hypotheses, test the manipulations and controls, and provide demographic information.<sup>33</sup> These questions will be explained further as the variables are described below.

## **Variables**

### *Client importance*

Client importance is defined in this study as the relative financial importance of the audit client to the local office of the audit firm. This study utilizes the office level unit based on the advice of Wallman (1996) who states that when assessing issues of auditor independence researchers should focus on “the individual, office or other unit of the firm making audit decisions with respect to a particular audit client” (78). Further, local offices contract and

---

<sup>33</sup> Several other questions were included in the experimental case; however, these were not of primary interest in this study but for sake of completeness have been left in the experimental case in Appendix C.

oversee the audit, and issue audit reports signed on the letterhead of the local office (Francis et al. 1999).

Client importance is manipulated as either high or low. The client of high (low) importance is described as “the largest client (one of the smallest clients) of your local office, representing approximately 40% (2%) of the office’s revenue.” The success of the manipulation is evaluated by asking participants to rate the financial importance of the client to the local office on a seven-point Likert-type scale with anchors of 1 – “Not At All Important”, and 7 – “Extremely Important.” A dummy variable (high or low) is utilized to test the first hypothesis.

### *Trust*

Auditors’ trust in the client’s management is manipulated as either high or low by varying the past interactions between the auditor and client. The complete trust manipulations, which were adapted from Kerler and Killough (2005), are provided below.

The high trust manipulation states:

“Last year’s (2003) audit work for SPST was a pleasant and enjoyable experience. They often exhibited a respectful and welcoming attitude towards the audit team. They patiently answered all of your standard questions and requests. When you were on location performing fieldwork you often had lunch at a local restaurant that was a favorite of many at SPST. When you saw them at the restaurant they were always friendly and frequently invited you to join them. During the audit you had noted only one potential adjustment that was immaterial to the financial statements. SPST’s management accepted the adjustment without protest. The end result of the audit was an unqualified opinion for SPST’s financial statements.”

The low trust manipulation states:

“Last year’s (2003) audit work for SPST was a frustrating and tiresome experience. They often exhibited a difficult and confrontational attitude towards the audit team. It quickly became clear from their body language that they found your standard questions and requests annoying. When you were on location performing fieldwork you often had lunch at a local restaurant that was a favorite of many at SPST. When you saw them at the restaurant they were always unfriendly and never invited you to join them. During the audit you had noted only one potential adjustment that was immaterial to the financial statements. SPST’s management did not bother to respond to your findings until you mentioned it again a few days later. At that point they refused to make the

adjustment. Because your proposed adjustment did not materially affect the financial statements, the end result of the audit was an unqualified opinion for SPST's financial statements.”

Auditors' trust in the client's management is measured as the mean responses to the five-item trust scale developed by Kerler and Killough (2005).<sup>34</sup> Participants indicated on a seven-point Likert-type scale the extent to which they agree or disagree with five statements. The five items are presented in Table 4-2. The scale has anchors on each point ranging from 1 – “Strongly Disagree” to 7 – “Strongly Agree.” Kerler and Killough (2005) report the measure is unidimensional with an Alpha reliability of 0.90. This measure is utilized to test the second hypothesis.

#### *Goal commitment*

Auditors' goal commitment is measured with the five-item scale Klein et al. (2001) created by shortening a longer scale developed by Hollenbeck et al. (1989). This scale was also utilized by Kadous et al. (2003) in a similar experimental task. Participants were first provided the goal of building a “justifiable case for characterizing [the client's] straight-line method to be an acceptable revenue-recognition method in the circumstances” (Kadous et al. 2003, 767). Concerning this goal, participants indicated on a five-point Likert-type scale the extent to which they agree or disagree with five statements. The five items and the goal are shown in Table 4-3. The scale has anchors of 1 – “Disagree Completely” and 5 – “Agree Completely.” Klein et al. (2001) and Kadous et al. (2003) report the measure is unidimensional with an Alpha reliability of 0.74 and 0.85, respectively. The mean response to these five items is the measure of auditors' commitment to the goal of accepting the client-preferred method and is utilized to test each of the hypotheses.<sup>35</sup>

#### *Acceptability*

Participants assessed whether the straight-line method is acceptable for recognizing revenue in the financial statements. This was done on a seven-point Likert-type scale with

---

<sup>34</sup> Kerler and Killough (2005) also utilized a single composite score (mean response) as their measure of trust.

<sup>35</sup> Kadous et al. (2003) classified participants as having high or low goal commitment by creating a single composite score (factor scores) and then performing a median split.

anchors of 1 – “Completely Unacceptable” and 7 – “Completely Acceptable.” The participants’ acceptability assessment of the straight-line method is utilized to test the third hypothesis.<sup>36</sup>

### *Other variables*

The experimental case controls for the competence of the client’s management as high. To verify this control, participants were asked to indicate their agreement to an item stating that the client’s management is competent. Responses were on a seven-point Likert-type scale with anchors on each point ranging from 1 – “Strongly Disagree” to 7 – “Strongly Agree.” Self-reported demographic data was also collected to provide descriptive statistics and to control for potential confounds. This data includes: years of assurance service experience, gender, position in firm (senior, manager, or partner), whether the participant is a Certified Public Accountant (CPA), whether the participant has ever participated in or prepared for discussions with a client’s audit committee, and the participants’ experience resolving complex revenue recognition issues.

## **RESULTS**

### **Preliminary Analysis**

The first step of the preliminary analysis is to confirm the measurement scales for trust and goal commitment. A confirmatory factor analysis of the trust scale verified the five items loaded on a single factor with loadings of 0.84, 0.91, 0.77, -0.73, and 0.87, respectively. Further, the single factor explained over 68 percent of the variance and had a Cronbach’s Alpha of 0.88. A confirmatory factor analysis of the goal commitment scale indicated the five items measured a single factor that explained over 58 percent of the variance and had a Cronbach’s Alpha of 0.80. The five items had factor loadings of -0.62, 0.88, 0.86, -0.61, -0.80, respectively.

---

36 Participants also assessed the appropriateness of the client-preferred method as well as two alternative methods provided to them. This was included to mirror SAS No. 90’s (AICPA 2000, paragraph 1, p. 3) requirement that an auditor “discuss with audit committees the auditor’s judgments about the quality, not just the acceptability, of the company’s accounting principles and underlying estimates in its financial statements.” The most appropriate method is defined to participants as “the one that is most consistent with the conceptual framework and accounting standards and best captures the economic substance of the transaction under consideration” (Kadous et al. 2003, 766). The appropriateness assessments were made on a seven-point Likert-type scale with anchors of 1 – “Not at all Appropriate” and 7 – “Completely Appropriate.” All results reported in this study are qualitatively the same as the results obtained (not tabulated) when the appropriateness assessment is used instead of the acceptability assessment.

The second step is to verify the control for management competence was successful. To do this, a 2x2 Analysis of Variance (ANOVA) is utilized with trust version (high or low trust case) and client importance (high or low) as the independent variables and competence as the dependent variable. Neither independent variable nor the interaction between the two is significant (all  $p > 0.05$ ). This indicates all participants had the same perception of the client's competence. The third step of the preliminary analysis is to investigate whether any of the demographic variables create systematic differences in the variables of interest (trust, goal commitment, and acceptability). The demographic variables include firm type (Big 4 or non-Big 4), gender (male or female), CPA (yes or no), position in firm (senior, manager, or partner), prior participation in or preparation for discussions with audit committees (yes or no), years of assurance experience, and experience resolving complex revenue recognition issues (seven-point scale discussed previously). To examine the potential effects on trust, a regression equation was estimated with trust as the dependent variable and each of the demographic variables as well as the manipulated version of trust (high or low) and the manipulated version of client importance (high or low) as the independent variable. No demographic control variables were significant (all  $p > 0.05$ ). To examine the effects on goal commitment, a regression equation was calculated with goal commitment as the dependent variable and each of the demographic variables as well as the manipulated version of client importance and the auditors' measured trust (five-item scale) as the independent variables. Again, none of the demographic variables were significant (all  $p > 0.05$ ).

To investigate the potential effects on the auditors' acceptance of the client-preferred method, a regression equation was calculated with acceptance as the dependent variable and each of the demographic variables as well as the manipulated version of client importance, the auditors' measured trust, and goal commitment as the independent variables. With the exception of the participants' experience resolving complex revenue recognition issues, no demographic variables were significant (all  $p > 0.05$ ). The auditors revenue recognition experience was negatively related to their acceptance decision ( $p = 0.034$ ), indicating auditors with more experience relating to the task rated the acceptability of the client's preferred method as lower compared to the others. However, when this variable is included as an additional explanatory

variable in the main analysis, the results and conclusions for the hypotheses are qualitatively the same (not tabulated) as those reported.<sup>37</sup>

The final step of the preliminary analysis is to test the successfulness of the manipulations for trust and client importance. We manipulated both variables as either high or low. To test whether the trust manipulation was successful a simple t-test was performed comparing the two groups' mean level of trust. The mean level of trust was 2.64 and 4.26 for auditors receiving the low and high manipulation, respectively. This difference is statistically significant ( $p < 0.001$ , one-tailed). To test whether the client importance manipulation was successful a single item was included in the case asking participants to rate the financial importance of the client to the local office. This was done utilizing a seven-point Likert-type scale with anchors at 1 – “Not at all important” and 7 – “Extremely important.” A simple t-test was performed comparing the two groups' mean rating. The mean client importance rating was 2.92 and 5.78 for auditors receiving the low and high manipulation, respectively. This difference is also statistically significant ( $p < 0.001$ , one-tailed). Together, these indicate the experimental manipulations were successful.

## **Main Analysis**

Hypotheses are tested with structural equation modeling (SEM).<sup>38, 39</sup> The financial importance of the client is measured with a dummy variable (high or low) and the auditors' acceptability assessment of the client's preferred method is measured as the participant's response to a single scale item. Random measurement error cannot be incorporated into the model for these two constructs because each are based on a single indicator that comes directly from the manipulation or a single participant response (i.e. not composite measures). To model

---

<sup>37</sup> In each of the three regressions utilized to test the demographic variables, position in firm was tested both as a single independent variable with three levels and as a set of dummy independent variables. In all regressions neither the single independent variable nor the dummy variables were significant.

<sup>38</sup> Although the sample size is small, the number of participants exceeds the recommended (e.g. Bentler and Chou 1987) minimum sample size to estimated parameter ratio of 5:1.

<sup>39</sup> An assumption of SEM is that the data have a multivariate distribution. Lending some support to this assumption, all univariate skewness and kurtosis values for trust, goal commitment, and acceptability were insignificant following Tabachnick and Fidell's (2001) recommended alpha level of 0.01 with small to moderate samples. Furthermore, multivariate kurtosis is also insignificant at an alpha level of 0.05. Finally, using Hair et al.'s (1998) suggested alpha level of 0.001, no multivariate outliers were identified with the Mahalanobis  $D^2$  measure. The manipulated client importance variable is not normal; however, it is acceptable to use dummy exogenous variables.

these constructs assuming no random measurement error, the path from each construct to its single indicator is fixed at one and the error term of each indicator is fixed at zero. Goal commitment and trust are measured as the participant's mean response to the two five-item scales. Random measurement error can be incorporated into the model for these constructs. To do so, the path from the construct to its single composite indicator is fixed at the square root of the Alpha reliability of the composite indicator. Also, the error term of the composite indicator is fixed at the quantity one minus Alpha multiplied by the variance of the composite indicator.<sup>40</sup>

The first step in testing the hypotheses is to evaluate the overall fit of the model to the data. Following the standard recommendation (e.g., Byrne 2001; Hair et al. 1998), multiple fit indices are utilized to assess the fit.<sup>41</sup> As shown in Figure 4-2, the fit indices of the hypothesized model are good. The path coefficients provide support for H2 and H3, but not H1. The non-significant relationship between client importance and goal commitment ( $p = 0.746$ ) indicates, contrary to H1, that there is not a positive relationship between the financial importance of the client and auditors' goal commitment. Therefore, the client importance variable is removed and the new model is estimated.

As shown in Figure 4-3, the revised model fits the data well. Further, consistent with the initial model, the path coefficients support the second and third hypotheses. As predicted in H2, auditors' trust is positively related to their goal commitment ( $p = 0.003$ ). This suggests that auditors' commitment to the goal of supporting the client-preferred method is affected by their trust in the client's management, with higher levels of trust leading to higher levels of commitment. Also, as predicted in the third hypothesis, the auditors' goal commitment is positively related to their acceptability assessments ( $p < 0.001$ ). This suggests that the more

---

<sup>40</sup> This method and similar methods of incorporating random measurement error have been utilized by recent research in a variety of disciplines (e.g., Lambert 2000; Pillai et al. 1999; Rothbard and Edwards 2003), including accounting (e.g. Bamber and Iyer 2002; De Ruyter and Wetzels 1999). Moreover, Netemeyer et al. (1990) report that the path estimates of models using single composite indicators adjusted for random measurement error are "virtually identical ... in terms of direction, significance, and strength" (p. 155) to the estimates of models utilizing multiple indicators per construct.

<sup>41</sup> Specifically, this study evaluates the following: the chi-square statistic, the chi-square to degrees of freedom ratio, the standardized root mean square residual (SRMR), the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the normed fit index (NFI), the incremental fit index (IFI), the non-normed fit index (NNFI) which is also called the Tucker-Lewis index, the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and Hoelter's critical  $N(.05)$  (CN).

committed auditors are to supporting the client's preferred method the more likely auditors are to consider the client's method as acceptable for financial statement reporting purposes. Together, the results suggest that auditors' trust in the client's management indirectly affects their judgments as to the acceptability of the client's reporting methods. However, this study is unable to show that the financial importance of the client to the local office affects auditor decisions.

### **Supplemental Analysis**

To test whether goal commitment, as predicted in this study, completely mediates the effects of incentives on auditors' acceptability decisions, an alternative model that predicts partial mediation is also estimated. Stated differently, the alternative model predicts that incentives have both direct effects and indirect effects on auditors' acceptability decisions. As shown in Figure 4-4, neither the direct effect of client importance or trust on acceptability is significant (both  $p > 0.05$ ). Consistent with the previous models, the effect of client importance on goal commitment is still not significant ( $p = 0.886$ ) while the effects of trust on goal commitment ( $p = 0.004$ ) and goal commitment on acceptability ( $p < 0.001$ ) are significant. The results of this partially mediating model provide additional support that auditors' trust in the client's management is positively related to their goal commitment, which in turn is positively related to their acceptability assessments.

## **DISCUSSION**

The independent review of financial statements is a key component in the dissemination of information from capital seekers to capital providers. Recent accounting scandals have highlighted the importance of auditors maintaining their independence. Impaired independence can affect audit decisions and the quality of audits, and may ultimately lead to inappropriate financial reporting. The goal of this study is to examine what threats to independence may affect audit decisions. Theory and research suggest that audit decisions are indirectly affected by incentives, by way of auditors' commitment to the goal of supporting a client-preferred method. This research investigates these relationships in an ambiguous revenue recognition scenario by simultaneously examining one direct incentive (financial importance of the client) and one indirect incentive (auditors' trust in the client).



The results indicate that an auditor's trust in a client's management is positively related to his or her commitment to the goal of supporting the client's preferred method, which in turn is positively related to the auditor's acceptability assessment of the client's method. However, the results do not indicate a relationship between the financial importance of the client to the local office of the audit firm and the auditor's goal commitment or his or her acceptability assessment. While the relationship between client importance and auditor decisions has been supported in prior research (e.g. Chang and Hwang 2003; Lord 1992), it is possible the recent accounting scandals and the resulting bad press have caused auditors to now be more conservative with their larger clients than prior to the scandals. An alternative explanation is that the financial importance of a client may still affect audit decisions in practice, however, the recent scandals caused auditor-participants to be sensitive to the manipulation (i.e. they saw through the manipulation) and they made certain the importance of the client did not affect their responses. Overall, the results suggest that auditors who develop trust in a client's management may be more likely to accept the client's preferred method of financial reporting. This study demonstrates the important role that auditors' trust can play in their audit decisions.

This study, like other experimental research, has its limitations. The use of an experimental case involving a fictitious audit scenario completed by participants on their own time limits the external validity of the study. However, this limitation should be partially offset by the use of a realistic case validated in prior research and by the use of contact partners to distribute and collect the experimental materials. Another limitation is the difficulty of manipulating incentives in an experimental case. For example, it is unlikely the manipulation of trust mirrors the strength of this bond developed in the "real world". This limitation should bias the research against finding results, and therefore, the results found may be even stronger in a realistic setting. Lastly, while this study attempts to collect data from a diverse group of auditors, it is possible the results are not representative of all external auditors.

This study contributes to the auditing literature by simultaneously testing multiple components of Johnstone et al.'s (2001) independence framework. The current research investigates the effect of an indirect incentive (auditor trust) which has received little research attention as well as a more researched direct incentive (client importance). The results suggest

that auditors' trust in a client's management may be a greater threat to independence than the financial importance of the client. This study also extends the JSW framework by identifying an important mediating construct (goal commitment) that theory and research suggest is missing from the original framework. The results suggest that incentives may not directly affect audit decisions, rather, incentives may strengthen auditors' commitment to the goal of supporting the client's preferred methods of reporting. This goal commitment may then affect audit decisions. Together, these contributions provide a broader and more complete picture of how incentives can influence audit decisions.

This study also has implications for practice. The results provide information to firms regarding how trusting a client's management may threaten an auditor's independence and affect audit decisions. This study also shows that audit decisions can be affected by an auditor's commitment to the goal of supporting a client's preferred method. Firms could utilize this knowledge to develop, refine, or reiterate firm policies that emphasize or reduce the likelihood of an auditor consciously or unconsciously developing trust in a client's management.

Finally, this study provides a variety of potential avenues for future research. For example, future research may wish to further investigate the relationship between client importance and audit decisions. Have the recent accounting scandals caused auditors to be more conservative with their larger clients than prior to the scandals, or is the lack of a relationship found in this study a result of auditors seeing through the manipulation? Also, this study only examined the effects of one indirect incentive and one direct incentive on auditor decisions. Future research could continue testing other components of Johnstone et al.'s (2001) independence framework. Research seeking to better understand the threats, mitigating factors, and consequences of auditor independence is necessary, and valuable, because independence is "the cornerstone of the accounting profession and one of its most precious assets" (Mednick 1997, 10).

## REFERENCES

- American Institute of Certified Public Accountants (AICPA). 2000. *Audit Committee Communications*. Statement on Auditing Standards No. 90. New York: AICPA.
- Bamber, E. M., and V. M. Iyer. 2002. Big 5 auditors' professional and organizational identification: Consistency or conflict. *Auditing: A Journal of Practice & Theory* 21 (2): 21-38.
- Bartlett, R. W. 1993. A scale of perceived independence: New evidence on an old concept. *Accounting, Auditing & Accountability Journal* 6 (2): 52-67.
- Beattie, V., R. Brandt, and S. Fearnley. 1999. Perceptions of auditor independence: U.K. evidence. *Journal of International Accounting, Auditing & Taxation* 8 (1): 67-107.
- Beaulieu, P. 2001. The effects of judgments of new clients' integrity upon risk judgments, audit evidence, and fees. *Auditing: A Journal of Practice & Theory* 20 (2): 85-99.
- Bentler, P. M., and C. Chou. 1987. Practical issues in structural equation modeling. *Sociological Methods & Research* 16 (1): 78-117.
- Bernardi, R. 1994. Fraud detection: The effect of client integrity and competence and auditor cognitive style. *Auditing: A Journal of Practice & Theory* 13 (Supplement): 68-84.
- Brandon, D. M., and J. M. Mueller. 2005. The influence of client importance on juror evaluations of auditor liability. *Behavioral Research in Accounting* (Forthcoming).
- Braun, K. W. 2001. The disposition of audit-detected misstatements: an examination of risk and reward factors and aggregation effects. *Contemporary Accounting Research* 18 (1): 71-99.
- Byrne, B. M., 2001. *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Chang, C. J., and N. R. Hwang. 2003. The impact of retention incentives and client business risks on auditors' decisions involving aggressive reporting practices. *Auditing: A Journal of Practice & Theory* 22 (2): 207-218.
- Das, T., and B. Teng. 2001. Trust, control, and risk in strategic alliances: An integrated framework. *Organization Studies* 22 (2): 251-283.
- De Ruyter, K., and M. Wetzels. 1999. Commitment in auditor-client relationships: antecedents and consequences. *Accounting, Organizations and Society* 24 (1): 57-75.

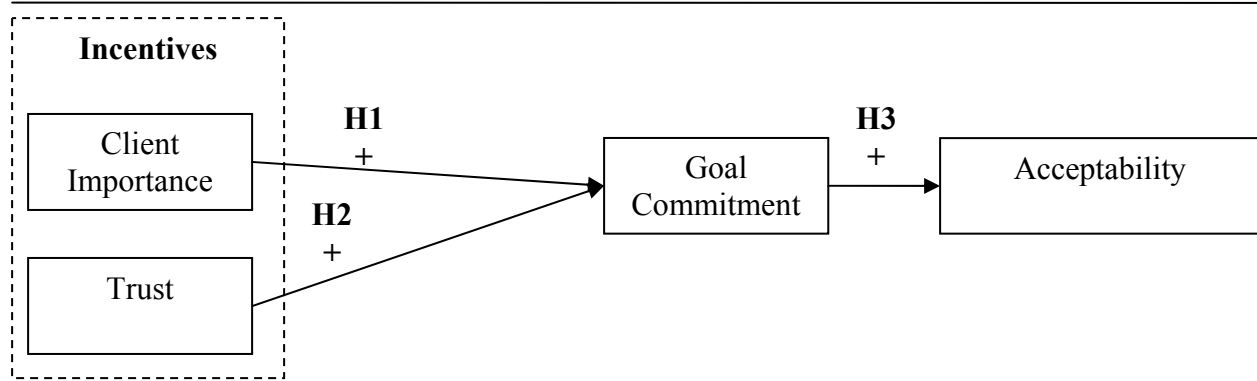
- Ditto, P. H., and D. F. Lopez. 1992. Motivated skepticism: Use of differential decision criteria for preferred and nonpreferred conclusions. *Journal of Personality and Social Psychology* 63 (4): 568-584.
- Farmer, T. A., L. E. Rittenberg, and G. M. Trompeter. 1987. An investigation of the impact of economic and organizational factors on auditor independence. *Auditing: A Journal of Practice & Theory* 7 (1): 1-14.
- Firth, M. 1980. Perceptions of auditor independence and official ethical guidelines. *The Accounting Review* 55 (3): 451-466.
- Francis, J. R., D. J. Stokes, and D. Anderson. 1999. City markets as a unit of analysis in audit research and the re-examination of Big 6 market shares. *Abacus* 35 (2): 185-206.
- Goodwin, J. 1999. The effects of source integrity and consistency of evidence on auditors' judgments. *Auditing: A Journal of Practice & Theory* 18 (2): 1-16.
- Gul, F. A. 1991. Size of audit fees and perceptions of auditors' ability to resist management pressure in audit conflict situations. *Abacus* 27 (2): 162-172.
- Hackenbrack, K., and M. W. Nelson. 1996. Auditors' incentives and their application of financial accounting standards. *The Accounting Review* 71 (1): 43-59.
- Hair, J. F. Jr., R. E. Anderson, R. L. Tatham, and W. C. Black. 1998. *Multivariate Data Analysis 5<sup>th</sup> edition*. Upper Saddle River, New Jersey: Prentice Hall.
- Haynes, C. M., J. G. Jenkins, and S. R. Nutt. 1998. The relationship between client advocacy and audit experience: An exploratory analysis. *Auditing: A Journal of Practice & Theory* 17 (2): 88-104.
- Hollenbeck, J. R., C. R. Williams, and H. J. Klein. 1989. An empirical examination of the antecedents of commitment to difficult goals. *Journal of Applied Psychology* 74 (1): 18-23.
- Hronsky, J. J. F., and K. A. Houghton. 2001. The meaning of a defined accounting concept: regulatory changes and the effect on auditor decision making. *Accounting, Organizations and Society* 26: 123-139.
- Iyer, V. M., and D. V. Rama. 2004. Clients' expectations on audit judgments: A note. *Behavioral Research in Accounting* 16: 63-74.
- Johnstone, K. M., M. H. Sutton, and T. D. Warfield. 2001. Antecedents and consequences of independence risk: Framework for analysis. *Accounting Horizons* 15 (1): 1-18.

- , J. C. Bedard, and S. F. Biggs. 2002. Aggressive client reporting: Factors affecting auditors' generation of financial reporting alternatives. *Auditing: A Journal of Practice & Theory* 21 (1): 47-65.
- Kadous, K., S. J. Kennedy, and M. E. Peecher. 2003. The effect of quality assessment and directional goal commitment on auditors' acceptance of client-preferred accounting methods. *The Accounting Review* 78 (3): 759-778.
- Kaplan, S., and P. Reckers. 1984. An empirical examination of auditors' initial planning process. *Auditing: A Journal of Practice & Theory* 4 (Fall): 1-19.
- Kerler, W. A. III, and L. N. Killough. 2005. The effects of previous experience and goodwill trust on auditors' perceived risk of management fraud. *Dissertation Working Paper (Chapter 2)*. Virginia Tech.
- Klein, H. J., M. J. Wesson, J. R. Hollenbeck, P. M. Wright, and R. P. DeShon. 2001. The assessment of goal commitment: A measurement model meta-analysis. *Organizational Behavior and Human Decision Processes* 85 (1): 32-55.
- Kunda, Z. 1999. *Social Cognition: Making Sense of People*. Cambridge, Massachusetts: The MIT Press.
- Lambert, S. J. 2000. Added benefits: The link between work-life benefits and organizational citizenship behavior. *Academy of Management Journal* 43 (5): 801-815.
- Latham, C., F. Jacobs, and P. Roush. 1998. Does auditor tenure matter? *Research in Accounting Regulation* 12: 165-177.
- Lord, A. T. 1992. Pressure: A methodological consideration for behavioral research in auditing. *Auditing: A Journal of Practice & Theory* 11 (2): 89-108.
- Lowe, D. J., and K. Pany. 1995. CPA performance of consulting engagements with audit clients: Effects on financial statement users' perceptions and decisions. *Auditing: A Journal of Practice & Theory* 14 (2): 35-53.
- Lundgren, S. R., and R. Prislin. 1998. Motivated cognitive processing and attitude change. *Personality and Social Psychology Bulletin* 24 (7): 715-726.
- Mednick, R. 1997. Chair's Corner. *The CPA Letter* 77 (5): 10.
- Messier, W. F. Jr., S. M. Glover, and D. F. Prawitt. 2006. *Auditing & Assurance Services: A Systematic Approach 4<sup>th</sup> edition*. New York: McGraw-Hill Irwin.
- Nelson, M. W., and W. R. Kinney, Jr. 1997. The effect of ambiguity on loss contingency reporting judgments. *The Accounting Review* 72 (2): 257-274.

- Netemeyer, R. G., M. W. Johnston, and S. Burton. 1990. Analysis of role conflict and role ambiguity in a structural equations framework. *Journal of Applied Psychology* 75 (2): 148-157.
- Nooteboom, B. 1996. Trust, opportunism and governance: A process and control model. *Organization Studies* 17 (6): 985-1010.
- Peecher, M. 1996. The influence of auditors' justification processes on their decisions: A cognitive model and experimental evidence. *Journal of Accounting Research* 34 (1): 125-140.
- Pillai, R., C. A. Schriesheim, and E. S. Williams. 1999. Fairness perceptions and trust as mediators for transformational and transactional leadership: A two-sample study. *Journal of Management* 25 (6): 897-933.
- Pyszczynski, T., and J. Greenberg. 1987. Toward an integration of cognitive and motivational perspectives on social inference: A biased hypothesis-testing model. *Advances in Experimental Social Psychology* 20: 297-340.
- Reynolds, B. 2003. News: Reputational remedial. *Accountancy*; London 131 (1313): 7.
- Rothbard, N. P., and J. R. Edwards. 2003. Investment in work and family roles: A test of identity and utilitarian motives. *Personnel Psychology* 56 (3): 699-730.
- Salterio, S., and L. Koonce. 1997. The persuasiveness of audit evidence: The case of accounting policy decisions. *Accounting, Organizations and Society* 22 (6): 573-587.
- Tabachnick, B. G., and L. S. Fidell. 2001. *Using Multivariate Statistics 4<sup>th</sup> edition*. Massachusetts: Allyn & Bacon.
- Teoh, H. Y., and C. C. Lim. 1996. An empirical study of the effects of audit committees, disclosure of nonaudit fees, and other issues of audit independence: Malaysian evidence. *Journal of International Accounting, Auditing & Taxation* 5 (2): 231-248.
- Tie, R. 2002. Rebuilding trust. *Journal of Accountancy* 194 (6): 61-63.
- Trompeter, G. 1994. The effect of partner compensation schemes and generally accepted accounting principles on audit partner judgment. *Auditing: A Journal of Practice & Theory* 13 (2): 56-68.
- Wallman, S. M. H. 1996. The future of accounting, part III: Reliability and auditor independence. *Accounting Horizons* 10 (4): 76-97.
- Wright, A., and S. Wright. 1997. An examination of factors affecting the decision to waive audit adjustments. *Journal of Accounting, Auditing & Finance* 12 (1): 15-36.

## FIGURES AND TABLES

**Figure 4-1: Summary of Hypotheses for the Effects of Incentives on Auditors' Judgment-Based Decisions**



For sake of simplicity, the error terms and the covariance between client importance and trust are not shown.

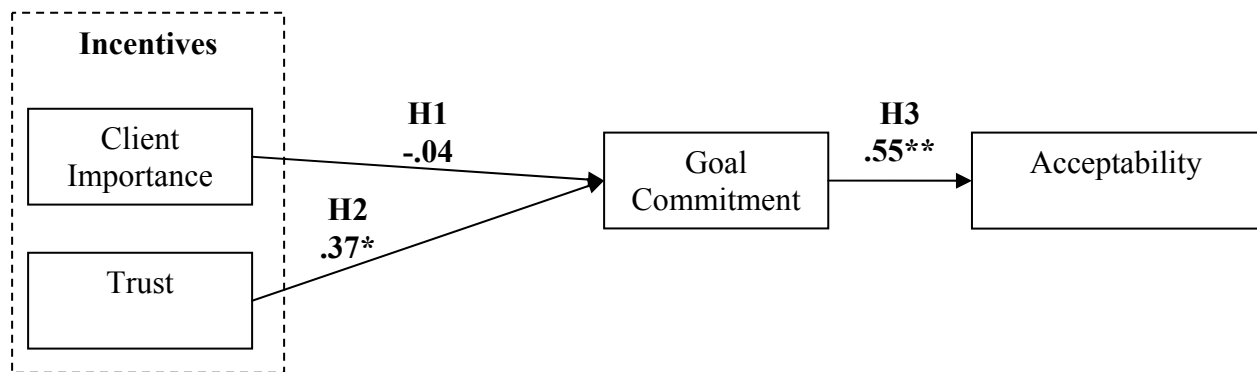
*Client Importance*: the financial importance of the audit client to the local office of the audit firm. Dummy variable where 1 = high importance and 0 = low importance.

*Trust*: auditors' trust in the client's management. Mean response to five-item trust scale (Kerler and Killough 2005) where each item is assessed on a seven-point Likert-type scale with anchors of 1 – strongly disagree, 2 – disagree, 3 – slightly disagree, 4 – neither agree nor disagree, 5 – slightly agree, 6 – agree, and 7 – strongly agree.

*Goal Commitment*: auditors' commitment to the goal of accepting the client-preferred method of recognizing revenue. Mean response to five-item goal commitment scale (Klein et al. 2001) where each item is assessed on a five-point Likert-type scale with anchors of 1 – disagree completely and 5 – agree completely.

*Acceptability*: auditors' assessment of whether the client-preferred method is acceptable for recognizing revenue in the financial statements. Single item on a seven-point Likert-type scale with anchors of 1 – completely unacceptable and 7 – completely acceptable.

**Figure 4-2: Estimated Model of the Effects of Incentives on Auditors' Acceptability Decisions**



Paths are standardized coefficients

\* Path is significant at  $p = 0.004$

\*\* Path is significant at  $p < 0.001$

For sake of simplicity, the error terms and the insignificant covariance between client importance and trust are not shown.

**Goodness of Fit<sup>(a)</sup>**

Chi-square 1.59 (p=.451)  
df 2

	<b>Model</b>	<b>Conventional Acceptable Fits</b>
Chi-square / df	0.80	< 2.00
SRMR	0.04	< 0.08
GFI	0.99	> 0.90
AGFI	0.94	> 0.90
NFI	0.95	> 0.90
IFI	1.02	> 0.90
NNFI	1.05	> 0.90
CFI	1.00	> 0.90
RMSEA	0.00	< 0.08
CN	253	$\geq 200$

<sup>(a)</sup> – SRMR: standardized root mean square residual, GFI: goodness of fit index, AGFI: adjusted goodness of fit index, NFI: normed fit index, IFI: incremental fit index, NNFI: non-normed fit index (also called the Tucker-Lewis index), CFI: comparative fit index, RMSEA: root mean square error of approximation, and CN: Hoelter's critical  $N (.05)$ .

See Figure 4-1 for description of variables.



**Figure 4-3: Estimated Model of the Effects of Trust on Auditors' Acceptability Decisions**



Paths are standardized coefficients

\* Path is significant at  $p = 0.003$

\*\* Path is significant at  $p < 0.001$

For sake of simplicity, the error terms are not shown.

**Goodness of Fit<sup>(a)</sup>**

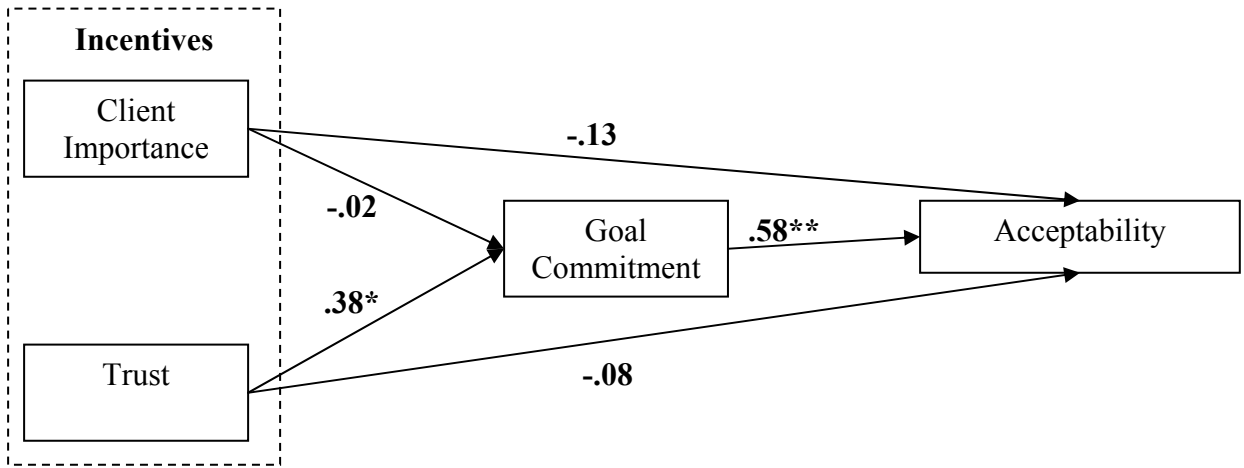
Chi-square      0.19 (p=.660)  
df                    1

	<u>Model</u>	<u>Conventional Acceptable Fits</u>
Chi-square / df	0.19	< 2.00
SRMR	0.02	< 0.08
GFI	1.00	> 0.90
AGFI	0.99	> 0.90
NFI	0.99	> 0.90
IFI	1.03	> 0.90
NNFI	1.10	> 0.90
CFI	1.00	> 0.90
RMSEA	0.00	< 0.08
CN	1329	>= 200

<sup>(a)</sup> – SRMR: standardized root mean square residual, GFI: goodness of fit index, AGFI: adjusted goodness of fit index, NFI: normed fit index, IFI: incremental fit index, NNFI: non-normed fit index (also called the Tucker-Lewis index), CFI: comparative fit index, RMSEA: root mean square error of approximation, and CN: Hoelter's critical  $N (.05)$ .

See Figure 4-1 for description of variables.

**Figure 4-4: Alternative Model Predicting Goal Commitment Partially Mediates the Effects of Incentives on Auditors' Acceptability Decisions**



Paths are standardized coefficients

\* Path is significant at  $p = 0.004$

\*\* Path is significant at  $p < 0.001$

For sake of simplicity, the error terms and the insignificant covariance between client importance and trust are not shown.

Because the model is saturated goodness of fit indices cannot be calculated.

**Table 4-1: Sample Descriptive Statistics**

	<u>Count</u>	<u>Percent (%)</u>			
Firm type:					
Big 4	27	39.7			
Non-Big 4	41	60.3			
Position:					
Senior	32	47.1			
Manager	29	42.6			
Partner	7	10.3			
Gender:					
Male	44	64.7			
Female	24	35.3			
CPA:					
Yes	61	89.7			
No	7	10.3			
Participated in or prepared for discussions with an audit committee:					
Yes	41	60.3			
No	27	39.7			
Experimental version:					
High client importance	32	47.1			
Low client importance	36	52.9			
High trust	37	54.4			
Low trust	31	45.6			
	<u>Mean</u>	<u>Median</u>	<u>S.D.</u>	<u>Minimum</u>	<u>Maximum</u>
Years of assurance experience	7.88	6.50	5.90	1	30
Experience resolving complex revenue recognition issues (seven-point scale ranging from 1 – “Not At All Experienced” to 7 – “Extremely Experienced”)	3.88	4.00	1.54	1	7

**Table 4-2: Measure of Trust – Kerler and Killough (2005)**

- 1.) I believe that Spacotech’s management are thoroughly dependable people.
- 2.) Spacotech’s management will do everything possible to help me.
- 3.) Spacotech’s management are similar to my friends.<sup>a</sup>
- 4.) I do not think that Spacotech’s management is completely open in dealing with me. (R)
- 5.) Spacotech’s management plans to be helpful during future audits.

<sup>(a)</sup> The phrase “similar to my friends” replaced Kerler and Killough’s (2005) “like my friends” to ensure participants did not think the item was asking if they considered the management to be their friends. The item is intended to gauge whether the management had characteristics similar to the characteristics of the participants’ friends.

(R) denotes reversed scored item

Response Scale: 1 – “Strongly Disagree,” 2 – “Disagree,” 3 – “Slightly Disagree,”  
4 – “Neither Agree nor Disagree,” 5 – “Slightly Agree,” 6 – “Agree,” 7 –  
“Strongly Agree”

**Table 4-3: Measure of Goal Commitment – Klein et al. (2001)**

- 1.) It was hard to take this goal seriously. (R)
- 2.) I thought this was a good goal to shoot for.
- 3.) I was strongly committed to pursuing this goal.
- 4.) Quite frankly, I didn't care if I achieved this goal or not. (R)
- 5.) It wouldn't have taken much to make me abandon this goal. (R)

Participants completed scale considering the goal to (Kadous et al. 2003, 766):

“Build a justifiable case for characterizing Spacotech’s straight-line method to be an acceptable revenue recognition method in the circumstances.”

(R) denotes reversed scored items

Response Scale: 1 – “Disagree Completely” through 5 – “Agree Completely”

## **CHAPTER 5:**

### **Summary, Conclusions, and Suggestions for Future Research**

#### **SUMMARY AND CONCLUSIONS**

This dissertation utilizes an experimental methodology to investigate the role an auditor's trust plays in his or her audit decisions. Previous research has not examined whether auditors develop trust in a client's management, nor whether trust affects their audit judgments. The importance of these questions is highlighted by recent accounting scandals as well as theoretical discussions of auditor independence. One of the major criticisms of Arthur Andersen regarding the Enron debacle is that the closeness between the auditors and the client's personnel hindered the auditors' ability to remain objective (e.g. Herrick and Barrionuevo 2002). Johnstone et al. (2001) suggest close relationships with a client create an incentive for auditors to allow their independence to become impaired, while Latham et al. (1998) discuss how trust may replace auditors' objectivity as the auditor-client relationship lengthens. Overall, these criticisms suggest that a close relationship with a client may lead auditors to develop trust in the client, which in turn, may hinder the auditors' ability to remain objective.

The first study (chapter 2) examines whether an auditor develops trust in the client's management as a result of working with the management during previous audit engagements. The results indicate that an auditor has a higher level of trust in the client's management after a

positive, overall satisfying experience working with the management compared to a negative, overall unsatisfying experience. Further, this study investigates whether an auditor's trust affects his or her perceived risk of management fraud. The study finds that an auditor's trust is negatively related to his or her fraud risk assessment, with higher levels of trust associated with lower risk, and vice versa. Overall, the results suggest auditors may develop trust in a client's management as a result of working with the client during prior audit engagements and this trust may affect audit decisions. The first study contributes to the auditing literature in two ways. First, to my knowledge, this is the only study to explicitly investigate whether auditors develop trust in a client's management and to examine whether trust affects their decisions. Second, this study develops a measure of an auditor's trust in a client's management that may prove useful for future auditing judgment and decision-making research.

The second study (chapter 3) investigates whether an auditor's decision to trust a client's management, and more importantly the extent to which to trust them, is at least in part an ethical judgment. Specifically, the study examines whether a Certified Public Accountant's level of moral reasoning affects his or her decision to trust a client's management, and the extent to which to trust them. The results indicate that CPAs with relatively higher levels of moral reasoning have less trust in the client's management than those with relatively lower levels of moral reasoning. The findings suggest that because the decision is an ethical one, trust beyond some level would be considered unethical. Excessive trust in the client's management is likely considered unethical because it may affect an auditor's objectivity. This study contributes to the accounting ethics literature by showing that the decision to trust a client's management, and more importantly, the extent to which to trust them, is in part an ethical decision.

The third study (chapter 4) simultaneously examines multiple components of Johnstone et al.'s (2001) framework for the antecedents and consequences of impaired independence. Specifically, this study examines whether an auditor's trust in the client's management and the financial importance of the client to the local office indirectly affect his or her acceptability assessment of the client's preferred method of recognizing revenue. The results indicate that auditors' trust, but not client importance, is positively related to their commitment to the goal of supporting the client's preferred method (goal commitment). Further, auditors' goal commitment

is positively related to their acceptability assessments. These results suggest that auditors who trust a client's management may be more likely to accept the client's reporting methods. The findings, with respect to the importance of trust, are consistent with the first study and suggest that auditors' trust in a client's management affects their audit decisions. The third study contributes to the auditing literature by simultaneously testing multiple components of Johnstone et al.'s (2001) independence framework. The study also extends the framework by identifying a mediating construct, goal commitment, that theory and research suggest is missing from the original framework.

This dissertation provides preliminary evidence highlighting the important role auditors' trust plays in their audit decisions. The results of the first two studies provide evidence that auditors do indeed develop trust in a client's management and that the extent to which they trust the client is in part an ethical judgment. Further, the first and third study show that auditors' trust plays an important role in two audit decisions – fraud risk assessment and acceptability assessments of a client's preferred revenue recognition method.

## **SUGGESTIONS FOR FUTURE RESEARCH**

The overall goal of this dissertation is to fill a void in the auditing literature by providing preliminary evidence regarding the importance of auditors' trust in their audit decisions. The three studies contained in this dissertation are the first to explicitly measure an auditor's trust in a client's management and to examine if trust affects an auditor's judgments. The findings of the studies suggest a number of possible avenues for future research.

The first study finds that an auditor's trust is affected by his or her experience working with the client's management during prior audit engagements; however, a bond developed in the "real world" may potentially be even stronger. Future research may wish to examine this utilizing cases designed to create even stronger auditor-client bonds or by investigating the relationship utilizing a game theory experiment requiring participants to play the role of auditors and client management. Also, the first study investigated the auditor-client relationship based on a single past audit engagement. It would be interesting to identify whether auditors' trust in the client's management changes after differentially satisfying experiences with the same client. For



example, can five satisfying experiences working with the client offset the effects of one prior unsatisfying experience?

The second study focused on how moral reasoning affects an auditor's trust. Future work could investigate what other factors, individual and organizational, affect an individual's trust. The third study did not find a relationship between an auditor's acceptance of the client's preferred reporting method and the financial importance of the client. Future research may wish to reexamine this relationship. Also, future work could investigate other components of Johnstone et al.'s (2001) independence framework. For example, what other incentives may create a risk for impaired independence and what factors may mitigate the effects of incentives? Finally, if auditors' trust affects their fraud risk assessment and their likelihood of accepting a client's preferred method, it may also affect other audit decisions. For example, would trust have a similar effect when auditors evaluate the fairness of individual account balances, as opposed to an overall fraud risk assessment?

This dissertation contributes to the auditing literature by providing initial evidence highlighting the important role of auditors' trust in their decision-making. This dissertation finds that auditors do develop trust in a client's management, the extent to which to trust a client's management is in part an ethical judgment, and auditors' trust in a client's management affects audit decisions.

## REFERENCES

- Herrick, T., and A. Barrionuevo. 2002, January 21. Were auditor and client too close-knit? Wall Street Journal p. C1.
- Johnstone, K. M., M. H. Sutton, and T. D. Warfield. 2001. Antecedents and consequences of independence risk: Framework for analysis. *Accounting Horizons* 15 (1): 1-18.
- Latham, C., F. Jacobs, and P. Roush. 1998. Does auditor tenure matter? *Research in Accounting Regulation* 12: 165-177.

## APPENDICES

### APPENDIX A: Case Material for Chapter 2

#### Test Instrument

##### Year Four's Audit

You are an audit manager for a large public accounting firm. Last year you worked for the first time on the audit of XYZ Corporation. This was the fourth year your firm has audited XYZ. The previous three years' audits all went smoothly. XYZ is a medium-sized furniture manufacturing firm. Their management consists of six individuals, all with over eight years of management experience at XYZ. Two are Certified Public Accountants (both with over four years of auditing experience) who earned both a bachelor's and master's degree in accounting. One, also a Certified Public Accountant (two years of auditing experience), earned a bachelor's degree in accounting and a Master's of Business Administration. Two earned both a bachelor's degree in management and a Master's of Business Administration. One earned a bachelor's degree in industrial and systems engineering and a doctorate in manufacturing systems engineering.

During the planning phase for last year's audit you interviewed XYZ's management and determined that they were very competent; they had the required knowledge, skills, and training to make management decisions and to prepare financial statements for XYZ. You also became very familiar with XYZ's operations by observing and interviewing numerous employees. Your firm's policy during the planning phase of each year's audit is to identify whether certain fraud indicators, or "red flags", are present. The presence of a red flag is an indicator of potential financial statement fraud. After becoming familiar with both the management and operations, you used this Red Flag Checklist to identify which of the 20 "red flags" were present or absent. You found three items to be present. The following page contains the Red Flag Checklist with all 20 items; the three items you found are listed first and indicated with an "X".

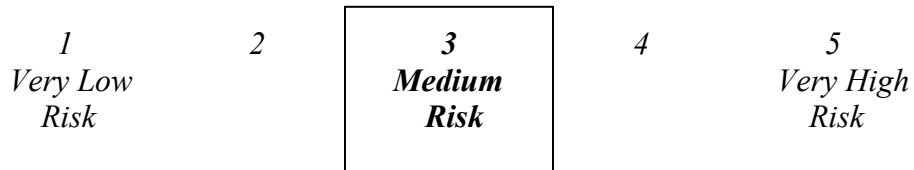
## Red Flag Checklist

**Check if Present**      **Red Flag Indicators**

- (1.) The industry is seeing increased competition in increasingly tougher economic times.
- (2.) The company has a high dependence on debt financing.
- (3.) Management has a significant accounting-based incentive plan.
- (4.) There is weak monitoring of the company’s internal controls.
- (5.) Management is inexperienced or unqualified.
- (6.) Management has a large stock ownership interest.
- (7.) Management operation and financial decisions are dominated by a single individual.
- (8.) There has been high management turnover.
- (9.) Management places undue emphasis on meeting earnings projections.
- (10.) Management is under strong pressure to increase the price of company’s stock.
- (11.) There is inadequate staffing of the accounting department.
- (12.) There is inadequate use of budgeting process and interim financial statements.
- (13.) The internal audit department is ineffective.
- (14.) There is a known history of securities law violations or claims against the entity or its management alleging fraud.
- (15.) The company lacks proper review and approval procedures.
- (16.) The company has experienced a net loss at least once in the past three years.
- (17.) The company has narrow margins of compliance with debt covenants.
- (18.) The company is in a period of rapid growth.
- (19.) The company’s profitability is inconsistent with most of the industry.
- (20.) The company has entered into transactions with related parties.

Your firm’s policy at the end of each year’s audit planning phase is to make an overall assessment of the risk of management fraud. Therefore, at the end of year four’s audit planning phase, you used the results of the Red Flags Checklist and your understanding of the client to assess the risk of management fraud for year four’s audit at “3 – Medium Risk”, based on the following scale.

***Risk of management fraud:***



*Positive Experience Version:*

**Results of year four's audit:**

During the audit work, XYZ's management always had a respectful attitude and never engaged in disputes with you. They always appeared to be well prepared for your meetings. When you were on location, you often joined them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment and XYZ's management made it without hesitation. The end result of the audit was an unqualified opinion for XYZ's financial statements.

---

*Negative Experience Version:*

**Results of year four's audit:**

During the audit work, XYZ's management had a hostile attitude and frequently engaged in disputes with you. They never appeared to be well prepared for your meetings. When you were on location, you were never invited to join them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment. XYZ's management put off responding to your proposed adjustment until you mentioned it again a few days later. At this point they refused to make the adjustment. Because your proposed adjustment did not materially affect the financial statements, the end result of the audit was an unqualified opinion for XYZ's financial statements.

## Year Five's Audit

The next year you have again been assigned to work on the audit of XYZ Corporation. This will be the second year you have audited XYZ (your firm's fifth year). During the planning phase you once again interviewed management and other employees. You found that XYZ's management consists of the same six individuals as last year. Furthermore, XYZ operates and functions the same as it did last year when you first gained an understanding of the company. After familiarizing yourself again with both the management and the operations, you used the same checklist as last year to identify whether 20 "red flags" were present or absent. You found the same three items to be present as you did last year. Below is the Red Flag Checklist with all 20 items; the three items you found are listed first and indicated with an "X".

### Red Flag Checklist

<b><u>Check if Present</u></b>	<b><u>Red Flag Indicators</u></b>
<u>  X  </u>	(1.) The industry is seeing increased competition in increasingly tougher economic times.
<u>  X  </u>	(2.) The company has a high dependence on debt financing.
<u>  X  </u>	(3.) Management has a significant accounting-based incentive plan.
<u>     </u>	(4.) There is weak monitoring of the company's internal controls.
<u>     </u>	(5.) Management is inexperienced or unqualified.
<u>     </u>	(6.) Management has a large stock ownership interest.
<u>     </u>	(7.) Management operation and financial decisions are dominated by a single individual.
<u>     </u>	(8.) There has been high management turnover.
<u>     </u>	(9.) Management places undue emphasis on meeting earnings projections.
<u>     </u>	(10.) Management is under strong pressure to increase the price of company's stock.
<u>     </u>	(11.) There is inadequate staffing of the accounting department.
<u>     </u>	(12.) There is inadequate use of budgeting process and interim financial statements.
<u>     </u>	(13.) The internal audit department is ineffective.
<u>     </u>	(14.) There is a known history of securities law violations or claims against the entity or its management alleging fraud.
<u>     </u>	(15.) The company lacks proper review and approval procedures.
<u>     </u>	(16.) The company has experienced a net loss at least once in the past three years.
<u>     </u>	(17.) The company has narrow margins of compliance with debt covenants.
<u>     </u>	(18.) The company is in a period of rapid growth.
<u>     </u>	(19.) The company's profitability is inconsistent with most of the industry.
<u>     </u>	(20.) The company has entered into transactions with related parties.

**\*\*\*Be sure to answer all the questions\*\*\***

**\*\*\*Please DO NOT refer back to the preceding pages when answering these questions\*\*\***

1. Using the results of the red flags checklist, and your understanding of the client, how would you assess the risk of management fraud for year five's audit? (Please circle your risk assessment)

1	2	3	4	5
Very Low Risk		Medium Risk		Very High Risk

**For each of the following statements, please indicate – by circling the corresponding number – how much you agree or disagree.**

2. XYZ's management is competent.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

3. I am satisfied with my experience with XYZ Corporation's management.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

4. I believe that XYZ Corporation's management are thoroughly dependable people.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

5. XYZ Corporation's management will do everything possible to help me.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

6. XYZ Corporation's management are like my friends.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

7. I do not think that XYZ Corporation's management is completely open in dealing with me.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

8. XYZ Corporation's management plans to be helpful during future audits.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree



## General Questions

**\*\* These questions (and the remaining questions on the survey) should be answered based on your actual experiences and/or opinions. \*\***

- a. What is your gender?            Male            Female
- b. Are you a Certified Public Accountant (CPA)?      Yes      No
- c. How many years of auditing experience do you have? \_\_\_\_\_
- d. Which of the following **best** describes your current job position? (CIRCLE ONE)
- Staff                                    In-Charge                                    Manager                                    Partner
- e. How many audits, on which you have directly participated, eventually detected financial statement fraud committed by client management? \_\_\_\_\_
- f. Have you had previous experience assessing fraud risk?            Yes      No

## **APPENDIX B: Case Material for Chapter 3**

### **Test Instrument**

#### **Year Four's Audit**

You are an audit manager for a large public accounting firm. Last year you worked for the first time on the audit of XYZ Corporation. This was the fourth year your firm has audited XYZ. The previous three years' audits all went smoothly. XYZ is a medium-sized furniture manufacturing firm. Their management consists of six individuals, all with over eight years of management experience at XYZ. Two are Certified Public Accountants (both with over four years of auditing experience) who earned both a bachelor's and master's degree in accounting. One, also a Certified Public Accountant (two years of auditing experience), earned a bachelor's degree in accounting and a Master's of Business Administration. Two earned both a bachelor's degree in management and a Master's of Business Administration. One earned a bachelor's degree in industrial and systems engineering and a doctorate in manufacturing systems engineering.

During the planning phase for last year's audit you interviewed XYZ's management and determined that they were very competent; they had the required knowledge, skills, and training to make management decisions and to prepare financial statements for XYZ. You also became very familiar with XYZ's operations by observing and interviewing numerous employees. Your firm's policy during the planning phase of each year's audit is to identify whether certain fraud indicators, or "red flags", are present. The presence of a red flag is an indicator of potential financial statement fraud. After becoming familiar with both the management and operations, you used this Red Flag Checklist to identify which of the 20 "red flags" were present or absent. You found three items to be present. The following page contains the Red Flag Checklist with all 20 items; the three items you found are listed first and indicated with an "X".

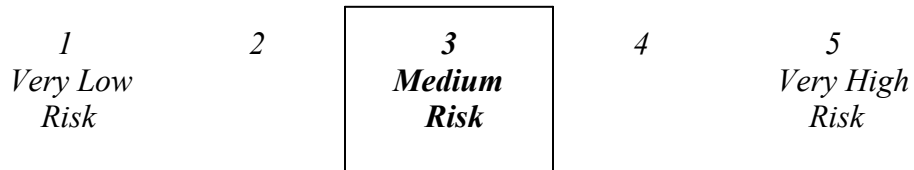
## Red Flag Checklist

**Check if Present**      **Red Flag Indicators**

- (1.) The industry is seeing increased competition in increasingly tougher economic times.
- (2.) The company has a high dependence on debt financing.
- (3.) Management has a significant accounting-based incentive plan.
- (4.) There is weak monitoring of the company's internal controls.
- (5.) Management is inexperienced or unqualified.
- (6.) Management has a large stock ownership interest.
- (7.) Management operation and financial decisions are dominated by a single individual.
- (8.) There has been high management turnover.
- (9.) Management places undue emphasis on meeting earnings projections.
- (10.) Management is under strong pressure to increase the price of company's stock.
- (11.) There is inadequate staffing of the accounting department.
- (12.) There is inadequate use of budgeting process and interim financial statements.
- (13.) The internal audit department is ineffective.
- (14.) There is a known history of securities law violations or claims against the entity or its management alleging fraud.
- (15.) The company lacks proper review and approval procedures.
- (16.) The company has experienced a net loss at least once in the past three years.
- (17.) The company has narrow margins of compliance with debt covenants.
- (18.) The company is in a period of rapid growth.
- (19.) The company's profitability is inconsistent with most of the industry.
- (20.) The company has entered into transactions with related parties.

Your firm's policy at the end of each year's audit planning phase is to make an overall assessment of the risk of management fraud. Therefore, at the end of year four's audit planning phase, you used the results of the Red Flags Checklist and your understanding of the client to assess the risk of management fraud for year four's audit at "3 – Medium Risk", based on the following scale.

***Risk of management fraud:***



*Positive Experience Version:*

**Results of year four's audit:**

During the audit work, XYZ's management always had a respectful attitude and never engaged in disputes with you. They always appeared to be well prepared for your meetings. When you were on location, you often joined them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment and XYZ's management made it without hesitation. The end result of the audit was an unqualified opinion for XYZ's financial statements.

---

*Negative Experience Version:*

**Results of year four's audit:**

During the audit work, XYZ's management had a hostile attitude and frequently engaged in disputes with you. They never appeared to be well prepared for your meetings. When you were on location, you were never invited to join them for lunches. During your review of their accounting records the only issue you had was that you believed they immaterially understated their estimate of Allowance for Bad Debt; and hence, immaterially understated their operating expenses. Although the amount was immaterial, you proposed an adjustment. XYZ's management put off responding to your proposed adjustment until you mentioned it again a few days later. At this point they refused to make the adjustment. Because your proposed adjustment did not materially affect the financial statements, the end result of the audit was an unqualified opinion for XYZ's financial statements.

## Year Five's Audit

The next year you have again been assigned to work on the audit of XYZ Corporation. This will be the second year you have audited XYZ (your firm's fifth year). During the planning phase you once again interviewed management and other employees. You found that XYZ's management consists of the same six individuals as last year. Furthermore, XYZ operates and functions the same as it did last year when you first gained an understanding of the company. After familiarizing yourself again with both the management and the operations, you used the same checklist as last year to identify whether 20 "red flags" were present or absent. You found the same three items to be present as you did last year. Below is the Red Flag Checklist with all 20 items; the three items you found are listed first and indicated with an "X".

### Red Flag Checklist

<b><u>Check if Present</u></b>	<b><u>Red Flag Indicators</u></b>
<u>  X  </u>	(1.) The industry is seeing increased competition in increasingly tougher economic times.
<u>  X  </u>	(2.) The company has a high dependence on debt financing.
<u>  X  </u>	(3.) Management has a significant accounting-based incentive plan.
<u>      </u>	(4.) There is weak monitoring of the company's internal controls.
<u>      </u>	(5.) Management is inexperienced or unqualified.
<u>      </u>	(6.) Management has a large stock ownership interest.
<u>      </u>	(7.) Management operation and financial decisions are dominated by a single individual.
<u>      </u>	(8.) There has been high management turnover.
<u>      </u>	(9.) Management places undue emphasis on meeting earnings projections.
<u>      </u>	(10.) Management is under strong pressure to increase the price of company's stock.
<u>      </u>	(11.) There is inadequate staffing of the accounting department.
<u>      </u>	(12.) There is inadequate use of budgeting process and interim financial statements.
<u>      </u>	(13.) The internal audit department is ineffective.
<u>      </u>	(14.) There is a known history of securities law violations or claims against the entity or its management alleging fraud.
<u>      </u>	(15.) The company lacks proper review and approval procedures.
<u>      </u>	(16.) The company has experienced a net loss at least once in the past three years.
<u>      </u>	(17.) The company has narrow margins of compliance with debt covenants.
<u>      </u>	(18.) The company is in a period of rapid growth.
<u>      </u>	(19.) The company's profitability is inconsistent with most of the industry.
<u>      </u>	(20.) The company has entered into transactions with related parties.

**\*\*\*Be sure to answer all the questions\*\*\***

**\*\*\*Please DO NOT refer back to the preceding pages when answering these questions\*\*\***

1. Using the results of the red flags checklist, and your understanding of the client, how would you assess the risk of management fraud for year five's audit? (Please circle your risk assessment)

1	2	3	4	5
Very Low Risk		Medium Risk		Very High Risk

**For each of the following statements, please indicate – by circling the corresponding number – how much you agree or disagree.**

2. XYZ's management is competent.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

3. I am satisfied with my experience with XYZ Corporation's management.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

4. I believe that XYZ Corporation's management are thoroughly dependable people.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

5. XYZ Corporation's management will do everything possible to help me.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

6. XYZ Corporation's management are like my friends.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

7. I do not think that XYZ Corporation's management is completely open in dealing with me.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

8. XYZ Corporation's management plans to be helpful during future audits.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

## General Questions

**\*\* These questions (and the remaining questions on the survey) should be answered based on your actual experiences and/or opinions. \*\***

1. What is your gender?            Male            Female
2. Are you a Certified Public Accountant (CPA)?            Yes            No
3. Do your current professional duties include external auditing?            Yes            No

**If Yes:**

- a. How many years of auditing experience do you have? \_\_\_\_\_

**If No:**

- a. Which of the following **best** describes your current profession? (CIRCLE ONE)

Internal audit	Business Consultant	Tax
Controller	Financial Planning	Financial Services

- b. How many years of experience do you have in your current profession? \_\_\_\_\_

## Defining Issues Test (DIT)

Not included: © 1979, James Rest  
All Rights Reserved



## APPENDIX C: Case Material for Chapter 4

### DIRECTIONS

You will be asked to assess, based on the information provided, whether the method that a hypothetical client has proposed for recognizing revenue for a contract (described later) is acceptable. Before assessing the *acceptability* of the client-preferred method, however, you will be asked to indicate what you believe to be the *most appropriate* revenue-recognition method under GAAP for the circumstances described. The most appropriate method is the one that is most consistent with the conceptual framework and accounting standards and that best captures the economic substance of the transaction under consideration.

As you know, auditors are required to discuss with audit committees the quality, not just the acceptability, of the client company's accounting principles and underlying estimates. The audit committee of the client in this case has a typical level of financial literacy. Your objective assessment of accounting method *appropriateness* will facilitate open and candid discussions with the audit committee about the quality of the client's accounting principles and estimates.

I will provide you with client background, details of the contract, and the client's proposed revenue-recognition method before asking for your assessment.

**\*\*PLEASE PROCEED TO THE NEXT PAGE AFTER READING THE DIRECTIONS\*\***

## THE CLIENT: SPACETECH SATELLITE COMMUNICATIONS

### \*\*\*Note: High Client Importance, High Trust Case\*\*\*

Your client is Spacotech Satellite, Inc. (NYSE: SPST), a publicly held, calendar-year company that began operations in 1995 and went public in 1998. Last year (2003) you worked for the first time on the audit of SPST. This was the fourth year your local office has audited them. The previous three years' audits all went smoothly. SPST's top management consists of six individuals, all college educated with extensive management experience. During the planning phase for last year's audit (2003) you interviewed management and determined that they were very competent; they had the required knowledge, skills, and training to make management decisions and to prepare financial statements for SPST. You also became very familiar with SPST's operations by observing and interviewing numerous employees. Last year's (2003) audit work for SPST was a pleasant and enjoyable experience. They often exhibited a respectful and welcoming attitude towards the audit team. They patiently answered all of your standard questions and requests. When you were on location performing fieldwork you often had lunch at a local restaurant that was a favorite of many at SPST. When you saw them at the restaurant they were always friendly and frequently invited you to join them. During the audit you had noted only one potential adjustment that was immaterial to the financial statements. SPST's management accepted the adjustment without protest. The end result of the audit was an unqualified opinion for SPST's financial statements.

In 2004 you have again been assigned to work on the audit of SPST. This will be the second year you have audited SPST (your local office's fifth year). SPST's management consists of the same individuals as last year. Furthermore, SPST operates and functions the same as it did last year when you first gained an understanding of the company. Spacotech is the largest client of your local office, representing approximately 40% of the office's revenue.

It is now early July 2004 and you are doing interim fieldwork. SPST leases time (called transponder time) on its growing fleet of satellites to both commercial and government organizations. These organizations use rented transponder time for a variety of high-bandwidth purposes including tracking and data relay (e.g., NASA), electronic commerce (e.g., Citibank), entertainment and news (e.g., CNN), and various defense-related communications (e.g., U.S. Navy). Selected financial information is provided below.

<i>(Dollars in millions)</i>	<b>2004 (Projected)</b>	<b>2003</b>	<b>2002</b>
<i>Revenues</i>	\$ 767	\$ 605	\$ 483
<i>Gross Margin</i>	62%	60%	59%
<i>Operating Profit</i>	\$ 392	\$ 298	\$ 230
<i>Operating Profit Margin</i>	51%	49%	48%
<i>Depreciation</i>	\$ 232	\$ 142	\$ 55
<i>Division Assets</i>	\$ 5,824	\$ 5,613	\$ 1,203
<i>Earnings per common share</i>	\$ 1.97	\$ 1.96	\$ 1.94

The 2004 projected income includes \$42.7 million in revenue from a new government contract that is described in the following pages.

## THE CLIENT: SPACETECH SATELLITE COMMUNICATIONS

\*\*\*Note: High Client Importance, Low Trust Case\*\*\*

Your client is Spacotech Satellite, Inc. (NYSE: SPST), a publicly held, calendar-year company that began operations in 1995 and went public in 1998. Last year (2003) you worked for the first time on the audit of SPST. This was the fourth year your local office has audited them. The previous three years' audits all went smoothly. SPST's top management consists of six individuals, all college educated with extensive management experience. During the planning phase for last year's audit (2003) you interviewed management and determined that they were very competent; they had the required knowledge, skills, and training to make management decisions and to prepare financial statements for SPST. You also became very familiar with SPST's operations by observing and interviewing numerous employees. Last year's (2003) audit work for SPST was a frustrating and tiresome experience. They often exhibited a difficult and confrontational attitude towards the audit team. It quickly became clear from their body language that they found your standard questions and requests annoying. When you were on location performing fieldwork you often had lunch at a local restaurant that was a favorite of many at SPST. When you saw them at the restaurant they were always unfriendly and never invited you to join them. During the audit you had noted only one potential adjustment that was immaterial to the financial statements. SPST's management did not bother to respond to your findings until you mentioned it again a few days later. At that point they refused to make the adjustment. Because your proposed adjustment did not materially affect the financial statements, the end result of the audit was an unqualified opinion for SPST's financial statements.

In 2004 you have again been assigned to work on the audit of SPST. This will be the second year you have audited SPST (your local office's fifth year). SPST's management consists of the same individuals as last year. Furthermore, SPST operates and functions the same as it did last year when you first gained an understanding of the company. Spacotech is the largest client of your local office, representing approximately 40% of the office's revenue.

It is now early July 2004 and you are doing interim fieldwork. SPST leases time (called transponder time) on its growing fleet of satellites to both commercial and government organizations. These organizations use rented transponder time for a variety of high-bandwidth purposes including tracking and data relay (e.g., NASA), electronic commerce (e.g., Citibank), entertainment and news (e.g., CNN), and various defense-related communications (e.g., U.S. Navy). Selected financial information is provided below.

<i>(Dollars in millions)</i>	<b>2004 (Projected)</b>	<b>2003</b>	<b>2002</b>
<i>Revenues</i>	\$ 767	\$ 605	\$ 483
<i>Gross Margin</i>	62%	60%	59%
<i>Operating Profit</i>	\$ 392	\$ 298	\$ 230
<i>Operating Profit Margin</i>	51%	49%	48%
<i>Depreciation</i>	\$ 232	\$ 142	\$ 55
<i>Division Assets</i>	\$ 5,824	\$ 5,613	\$ 1,203
<i>Earnings per common share</i>	\$ 1.97	\$ 1.96	\$ 1.94

The 2004 projected income includes \$42.7 million in revenue from a new government contract that is described in the following pages.

## THE CLIENT: SPACETECH SATELLITE COMMUNICATIONS

\*\*\*Note: Low Client Importance, High Trust Case\*\*\*

Your client is Spacotech Satellite, Inc. (NYSE: SPST), a publicly held, calendar-year company that began operations in 1995 and went public in 1998. Last year (2003) you worked for the first time on the audit of SPST. This was the fourth year your local office has audited them. The previous three years' audits all went smoothly. SPST's top management consists of six individuals, all college educated with extensive management experience. During the planning phase for last year's audit (2003) you interviewed management and determined that they were very competent; they had the required knowledge, skills, and training to make management decisions and to prepare financial statements for SPST. You also became very familiar with SPST's operations by observing and interviewing numerous employees. Last year's (2003) audit work for SPST was a pleasant and enjoyable experience. They often exhibited a respectful and welcoming attitude towards the audit team. They patiently answered all of your standard questions and requests. When you were on location performing fieldwork you often had lunch at a local restaurant that was a favorite of many at SPST. When you saw them at the restaurant they were always friendly and frequently invited you to join them. During the audit you had noted only one potential adjustment that was immaterial to the financial statements. SPST's management accepted the adjustment without protest. The end result of the audit was an unqualified opinion for SPST's financial statements.

In 2004 you have again been assigned to work on the audit of SPST. This will be the second year you have audited SPST (your local office's fifth year). SPST's management consists of the same individuals as last year. Furthermore, SPST operates and functions the same as it did last year when you first gained an understanding of the company. Spacotech is one of the smallest clients of your local office, representing approximately 2% of the office's revenue.

It is now early July 2004 and you are doing interim fieldwork. SPST leases time (called transponder time) on its growing fleet of satellites to both commercial and government organizations. These organizations use rented transponder time for a variety of high-bandwidth purposes including tracking and data relay (e.g., NASA), electronic commerce (e.g., Citibank), entertainment and news (e.g., CNN), and various defense-related communications (e.g., U.S. Navy). Selected financial information is provided below.

<i>(Dollars in millions)</i>	<b>2004 (Projected)</b>	<b>2003</b>	<b>2002</b>
<i>Revenues</i>	\$ 767	\$ 605	\$ 483
<i>Gross Margin</i>	62%	60%	59%
<i>Operating Profit</i>	\$ 392	\$ 298	\$ 230
<i>Operating Profit Margin</i>	51%	49%	48%
<i>Depreciation</i>	\$ 232	\$ 142	\$ 55
<i>Division Assets</i>	\$ 5,824	\$ 5,613	\$ 1,203
<i>Earnings per common share</i>	\$ 1.97	\$ 1.96	\$ 1.94

The 2004 projected income includes \$42.7 million in revenue from a new government contract that is described in the following pages.

## THE CLIENT: SPACETECH SATELLITE COMMUNICATIONS

\*\*\*Note: Low Client Importance, Low Trust Case

Your client is Spacotech Satellite, Inc. (NYSE: SPST), a publicly held, calendar-year company that began operations in 1995 and went public in 1998. Last year (2003) you worked for the first time on the audit of SPST. This was the fourth year your local office has audited them. The previous three years' audits all went smoothly. SPST's top management consists of six individuals, all college educated with extensive management experience. During the planning phase for last year's audit (2003) you interviewed management and determined that they were very competent; they had the required knowledge, skills, and training to make management decisions and to prepare financial statements for SPST. You also became very familiar with SPST's operations by observing and interviewing numerous employees. Last year's (2003) audit work for SPST was a frustrating and tiresome experience. They often exhibited a difficult and confrontational attitude towards the audit team. It quickly became clear from their body language that they found your standard questions and requests annoying. When you were on location performing fieldwork you often had lunch at a local restaurant that was a favorite of many at SPST. When you saw them at the restaurant they were always unfriendly and never invited you to join them. During the audit you had noted only one potential adjustment that was immaterial to the financial statements. SPST's management did not bother to respond to your findings until you mentioned it again a few days later. At that point they refused to make the adjustment. Because your proposed adjustment did not materially affect the financial statements, the end result of the audit was an unqualified opinion for SPST's financial statements.

In 2004 you have again been assigned to work on the audit of SPST. This will be the second year you have audited SPST (your local office's fifth year). SPST's management consists of the same individuals as last year. Furthermore, SPST operates and functions the same as it did last year when you first gained an understanding of the company. Spacotech is one of the smallest clients of your local office, representing approximately 2% of the office's revenue.

It is now early July 2004 and you are doing interim fieldwork. SPST leases time (called transponder time) on its growing fleet of satellites to both commercial and government organizations. These organizations use rented transponder time for a variety of high-bandwidth purposes including tracking and data relay (e.g., NASA), electronic commerce (e.g., Citibank), entertainment and news (e.g., CNN), and various defense-related communications (e.g., U.S. Navy). Selected financial information is provided below.

<i>(Dollars in millions)</i>	<b>2004 (Projected)</b>	<b>2003</b>	<b>2002</b>
<i>Revenues</i>	\$ 767	\$ 605	\$ 483
<i>Gross Margin</i>	62%	60%	59%
<i>Operating Profit</i>	\$ 392	\$ 298	\$ 230
<i>Operating Profit Margin</i>	51%	49%	48%
<i>Depreciation</i>	\$ 232	\$ 142	\$ 55
<i>Division Assets</i>	\$ 5,824	\$ 5,613	\$ 1,203
<i>Earnings per common share</i>	\$ 1.97	\$ 1.96	\$ 1.94

The 2004 projected income includes \$42.7 million in revenue from a new government contract that is described in the following pages.

**Market Expectations:**

A source of pride for management is that annual earnings per share (EPS) have increased every year since SPST went public in 1998. Management believes that consistent increases in EPS drive increases in stock prices.

Based on first quarter results, analysts' consensus forecast of 2004 annual EPS was \$1.94, which represents a \$0.02 decline from 2003's reported earnings. In May 2004, however, SPST management signed a unique contract (details provided later) that they contend will allow them to extend their trend of ever-increasing annual EPS. If the contract is accounted for in the manner preferred by SPST management, 2004 earnings are projected to be \$1.97 per share. In other words, instead of a forecasted \$0.02 decrease per share from the prior year, SPST would show a \$0.01 increase, and their increasing EPS trend would remain intact.

Management is currently preparing the June 30, 2004 quarterly financial statements. These quarterly statements will be the first to reflect the new contract. Although these statements will not be audited, they will be included with Form 10-Q, which will be filed with the SEC. Management is extremely reluctant to restate financial statements once they have been made public.

Management anticipates that once the results for the second quarter using the client-preferred revenue recognition method become public, analysts will revise their earnings expectations upwards—probably to \$1.97 per share.

## **The Government Contract**

On May 3, 2004, SPST management entered into a one-year contract with the Royal Australian Navy. The contract could last for 5 years and generate over \$300 million in revenue if all options on the contract were exercised. Without exercise of those options, the one-year \$64 million contract will expire on April 30, 2005.

### **Specifics of the Contract:**

This contract is unlike all other SPST transponder rental contracts, which are either fixed-fee contracts (i.e., periodic rent fees are independent of actual transponder usage) or variable-fee contracts (i.e., periodic rent fees are a function of actual transponder usage). Specifically, because SPST wanted assurance that contractual revenues would at least cover the expected operating costs associated with the rented transponders, SPST negotiated a variable-fee contract with a *minimum annual rental fee*.

The Royal Australian Navy has agreed to use or pay for at least 4,000 total hours over the May 2004 to April 2005 lease term at an (average) rental rate of \$16,000 per hour, aggregating to \$64,000,000. Of the costs associated with rendering satellite services, about 67% are fixed (constant costs associated with monitoring the satellite's altitude and orbital position) and 33% are variable. All operating costs remain wholly SPST's responsibility.

The contract specifies separate transponder hourly rental rates of \$20,000 for "exclusive" SHF telemetry, command, and fleet broadcast uplink purposes and \$8,000 for UHF reception and transmission purposes. If actual usage rates billed at contractual amounts exceed the average rental rate, the higher contractual amounts will be paid to SPST.

The contract does not require that the transponders be restricted solely to the Royal Australian Navy's use. The Royal Australian Navy must provide advance notice of usage time so that SPST can manage the process of allocating bandwidth to other potential customers.

During the period of May and June 2004, the Royal Australian Navy used a total of 320 hours (172 SHF and 148 UHF). It is expected that as of December 31, 2004 (SPST's year-end), the Royal Australian Navy will have used a total of 1250 hours (675 SHF and 575 UHF).

### **CLIENT-PREFERRED METHOD OF RECOGNIZING REVENUE**

The client prefers to allocate the expected revenue evenly over the lease period regardless of actual use (referred to as the *straight-line method* of revenue recognition). Under this method, the soon-to-be-released income statement for the second quarter (ending June 30, 2004) would include \$10,666,667 in revenue ( $\$64,000,000 * 2/12$ ). For the year ending December 31, 2004, the straight-line method would allow the client to recognize \$42,666,667 in revenue ( $\$64,000,000 * 8/12$ ).

The rationale for the straight-line method is: it is easily understood, it is consistent with SPST's treatment of fixed-fee leases, and it generates a smooth income stream. The client CFO has expressed concern about releasing first-quarter financial statements for next year (i.e., the quarter ending 3/31/2005) under any revenue-recognition method that would defer more revenue. "Other methods effectively would push more revenue into year 2005's first quarter and that, in turn, would generate unrealistic earnings expectations for the last three quarters of year 2005.

Ultimately, when those earnings aren't realized, our stock price would suffer for no underlying economic reason."

**YOUR ASSESSMENT OF THE MOST APPROPRIATE  
REVENUE-RECOGNITION METHOD**

Recall that the most appropriate method is the one that is most consistent with the conceptual framework and accounting standards and best captures the economic substance of the transaction under consideration.

1. Following are three potential ways in which Spacotech could account for the contract. Please rate the appropriateness of each of these methods. If you develop another method, please fill it in and also rate its appropriateness.

<u>Method</u>	<u>Not at all Appropriate</u>					<u>Completely Appropriate</u>	
	1	2	3	4	5	6	7
(A.) Actual usage rate method: (i.e., [\$20,000/hr x 675 SHF hrs] + [\$8,000/hr x 575 UHF hrs] or \$18,100,000 projected for 2004)	1	2	3	4	5	6	7
(B.) Average revenue per hour method: (i.e., \$16,000/hr x 1,250 hrs or \$20,000,000 projected for 2004)	1	2	3	4	5	6	7
(C.) Straight-line method: (i.e., \$64,000,000 * 8/12 or \$42,666,667 projected for 2004).	1	2	3	4	5	6	7
(D.) Other (optional) Briefly describe:  _____	1	2	3	4	5	6	7

2. Please rank the appropriateness of each of these methods using the rankings provided below. **Each ranking should only be used once.** If you developed another method in #1 your rankings will include 1 through 4, whereas if you did not, your rankings will include 1 through 3.

- Rankings:      1 = Most appropriate  
                     2 = Second most appropriate  
                     3 = Third most appropriate  
                     4 = Fourth most appropriate

<u>Method</u>	<u>Ranking</u>
(A.) Actual usage rate method: (i.e., [\$20,000/hr x 675 SHF hrs] + [\$8,000/hr x 575 UHF hrs] or \$18,100,000 projected for 2004)	_____
(B.) Average revenue per hour method: (i.e., \$16,000/hr x 1,250 hrs or \$20,000,000 projected for 2004)	_____
(C.) Straight-line method: (i.e., \$64,000,000 * 8/12 or \$42,666,667 projected for 2004).	_____
(D.) Other (if described in #1)	_____



**YOUR ASSESSMENT OF WHETHER THE STRAIGHT-LINE METHOD IS ACCEPTABLE FOR RECOGNIZING REVENUE IN THE FINANCIAL STATEMENTS**

3. Based on the information provided, how acceptable is the straight-line method of recognizing revenue for this contract?

1	2	3	4	5	6	7
Completely Unacceptable						Completely Acceptable

4. Which of the following are acceptable methods of recognizing revenue for this contract? (Check all that are acceptable. See question #1 for descriptions.)

_____	Actual usage	_____	Average revenue per hour
_____	Straight line	_____	Other method (if described in #1)

## YOUR GOALS IN COMPLETING THE SPACETECH CASE

Following are two possible goals that you could have had while considering the Spacetech revenue-recognition case. Please indicate how important each of these goals was to you by rating the extent to which you agree or disagree with each statement for each listed goal.

**Goal:** *Build a justifiable case for characterizing Spacetech's straight-line method to be an acceptable revenue-recognition method in the circumstances.*

	Disagree Completely			Agree Completely	
a. It was hard to take this goal seriously.	1	2	3	4	5
b. I thought this was a good goal to shoot for.	1	2	3	4	5
c. I was strongly committed to pursuing this goal.	1	2	3	4	5
d. Quite frankly, I didn't care if I achieved this goal or not.	1	2	3	4	5
e. It wouldn't have taken much to make me abandon this goal.	1	2	3	4	5

**Goal:** *Build a justifiable case for characterizing Spacetech's straight-line method to be the most appropriate revenue recognition method in the circumstances. Note: The most appropriate method is the one that is most consistent with the conceptual framework and accounting standards and that best captures the economic substance of the transaction under consideration.*

	Disagree Completely			Agree Completely	
a. It was hard to take this goal seriously.	1	2	3	4	5
b. I thought this was a good goal to shoot for.	1	2	3	4	5
c. I was strongly committed to pursuing this goal.	1	2	3	4	5
d. Quite frankly, I didn't care if I achieved this goal or not.	1	2	3	4	5
e. It wouldn't have taken much to make me abandon this goal.	1	2	3	4	5

**QUESTIONS ABOUT SPACETECH: PLEASE CIRCLE A NUMBER**

1. Spacotech's management is competent.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

2. I am satisfied with my experience with Spacotech's management.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

3. I believe that Spacotech's management are thoroughly dependable people.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

4. Spacotech's management will do everything possible to help me.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

5. Spacotech's management are similar to my friends.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

6. I do not think that Spacotech's management is completely open in dealing with me.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

7. Spacotech's management plans to be helpful during future audits.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

8. How would you rate the financial importance of Spacotech to your local office?

1	2	3	4	5	6	7
Not At All Important						Extremely Important

9. While making your decisions about the acceptability of the Spacotech's preferred method of revenue recognition, to what extent were you concerned about each of the following?

				Not at all Important				Very Important
a. Whether the SEC would allow the method	1	2	3	4	5	6	7	
b. Whether SPST's audit committee would agree with the method	1	2	3	4	5	6	7	
c. Whether lawsuits would result from use of an aggressive method	1	2	3	4	5	6	7	
d. Whether lawsuits would result from discontinuance of an aggressive method	1	2	3	4	5	6	7	
e. Whether client relations would suffer if I didn't allow the method	1	2	3	4	5	6	7	

10. In the case that you read, to what extent was there pressure to accept Spacotech's straight-line method?

1	2	3	4	5	6	7
Very Low Pressure			Average Pressure			Very High Pressure

11. I have trust in the good intentions, honesty, dependability, and helpfulness of Spacotech's management.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree



21. Managers in my office often engage in behaviors that I consider to be unethical.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

22. If a manager in my office is discovered to have engaged in unethical behavior that results primarily in *personal gain* (rather than office gain), he or she will be promptly reprimanded.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

23. If a manager in my office is discovered to have engaged in unethical behavior that results primarily in *office gain* (rather than personal gain), he or she will be promptly reprimanded.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

24. Top management in my office has let it be known in no uncertain terms that unethical behaviors will not be tolerated.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

25. In order to succeed in my office, it is often necessary to compromise one's ethics.

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

**\*\*YOU ARE DONE. THANK YOU.\*\***

## **VITA**

### **William A. Kerler III**

William Anton Kerler III was born in New Jersey on January 13, 1978. He grew up in Collegeville, Pennsylvania and graduated from Methacton High School in 1996. Bill graduated from Virginia Tech in 2000 with a B.S. in Accounting and went on to also earn his Master's of Accountancy in 2001 from Virginia Tech. He began his doctoral studies in 2001.