

**The Effects of Client Organizational Identification on
Internal and External Auditors' Subjective and
Objective Judgments**

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SUMMARY: The recent adoption of Audit Standard 5 could potentially increase external auditors' reliance on internal auditors' work. To investigate whether this potential increased reliance could influence audit quality, this paper reports the results of an experiment that examines the effects of auditor type (i.e., internal or external) and client business risk on subjective and objective auditor judgments. In addition to being the first study in a post-Sarbanes-Oxley era to examine internal versus external auditors' judgments, this study is the first to examine the effects of auditors' perceived levels of Organizational Identification with the client being audited (Client OID) on audit-related judgments. The results suggest that internal auditors perceive greater levels of Client OID than external auditors. Furthermore, the stronger Client OID perceived by internal auditors provides insight into why internal auditors make more conservative decisions in subjective high business risk settings compared to external auditors.

Keywords: Auditor Judgment, Organizational Identification, Internal Auditor, External Auditor

Data Availability: Contact the author

The Effects of Client Organizational Identification on Internal and External Auditors' Subjective and Objective Judgments

1.0 Introduction

This paper reports the results of an experiment that examines the effects of auditor type and client business risk on subjective and objective auditor judgments. Specifically, this study examines whether in-house internal and external auditors evaluate subjective and objective 404 related (i.e., control-oriented) tasks similarly for clients that are or are not experiencing liquidity concerns. Additionally, this study investigates the relationships between auditor judgments and Organizational Identification, a perceptual cognitive construct that measures the psychological attachment felt by an individual to a specific organization (Bamber and Iyer 2002). Specifically, this study uses a modified Bamber and Iyer (2002) scale to propose that auditors' perceived levels of Organizational Identification with the client being audited (Client OID) could provide insight into differences in internal and external auditor judgments.¹

This study is motivated by the PCAOB's recent adoption of Audit Standard No. 5 (AS5), and some auditing firms' belief that AS5 removes the barriers to using the work of internal auditors for control evaluations (i.e., there is no longer a principal evidence requirement for control evaluations).² While prior research documents a hesitancy to rely on internal audit work in certain situations (e.g., DeZoort et al. 2001), the adoption of AS5 and a growing body of research (e.g., Bailey et al. 2003) suggest that external auditors will begin relying more heavily on internal audit work.

¹ For ease of reference, Client OID will capture the OID felt by internal (external) auditors for their employer (audit client).

² Source: Presentation of one Big4 firm, entitled "AS5: Section 404 Developments"

Bailey et al. (2003) suggest that since the passage of Sarbanes-Oxley (SOX), the internal audit function is being perceived as an integral part of the solution to breakdowns of business reporting, internal control, and ethical behavior. Additionally, Gramling et al. (2004) suggest that reliance on internal audit has taken on increased importance in today's auditing environment, since internal and external auditors have become more aligned and developed deeper relationships since the passage of SOX.

AS5 will likely lead external auditors to rely more on their clients' internal audit departments than AS2 when conducting a 404 audit. While external auditors will be reviewing, and in some cases coordinating, internal auditors' control evaluations, increased internal auditor reliance could have negative impacts on audit quality and efficiency if internal auditors do not appropriately assess internal controls.

Furthermore, while the services provided by internal auditors and external auditors differ, both have professional responsibilities to provide client management with objective assessments (AICPA Code of Professional Conduct 1988; IIA Code of Ethics 2000). Conscious or unconscious biases in internal or external auditor assessments potentially jeopardize the accuracy of the client's financial statements. This study contributes to the academic literature by introducing Client OID as a factor that could provide further insight into internal and external auditors' judgments. Additionally, this study provides practicing external auditors with evidence concerning the implications of relying on internal audit.

Social Identification Theory states that individuals seek to classify themselves into various social categories (e.g., age cohort, gender, religious affiliation) to help define their personal identities (Ashforth et al. 1989). Mael and Ashforth (1992) assert that the

process of social classification affords individuals the opportunity to easily order their social environment and locate themselves, and others, within it. OID is an applied construct of Social Identification Theory that examines the extent to which an individual defines his/her identity vis-à-vis an organization. OID captures the psychological attachment that one has with an organization, i.e., the extent to which individuals perceives the organization's successes and failures as their own (Bamber and Iyer 2002).

This study first investigates whether internal auditors and external auditors experience the same level of OID for the firm that is being audited (Client OID). Understanding whether internal and external auditors experience different levels of Client OID is important because both internal and external auditors are required to perform their duties objectively (AICPA Code of Professional Conduct 1988; IIA Code of Ethics 2000); however, prior psychology research suggests that the extent to which individuals perceive themselves as part of their clients' organizations could influence their objectivity (Brewer 1999).

Internal auditors are, by definition, more embedded within a particular organization than external auditors because the responsibilities of internal auditors are more intertwined (e.g., operational audits) with the client's daily operations than external auditors. Knippenberg and Schie (2000) suggest that the more employees are involved in the operations of their organizations the more organizational identification that will be perceived. Because internal auditors are more involved into their clients' daily operations than external auditors, this study hypothesizes that internal auditors will perceive higher levels of Client OID than external auditors.

This study hypothesizes the effects of Client OID will lead to an interactive effect of auditor type and client business risk. Prior psychology research suggests that individuals who identify with a group are more willing to protect members of that group (Thompson 1995). While some might interpret auditors' increased propensity to protect the well being of a client as an indication that the auditor might give the client the 'benefit of doubt', an alternative interpretation exists given auditors' professional and social responsibilities.

Individuals who perceive high levels of Client OID experience the successes and failure of the organization as their own (Bamber and Iyer 2002). Accordingly, it is expected that auditors who have high levels of Client OID are expected to be more conservative in their judgments in order to protect the organization (and essentially their own self-esteem) from the negative repercussions of misstatements or restatements.

Prior research also suggests that individuals' OID is insensitive to moderately negative information about the organization (Einwiller et al. 2006). Therefore, it is expected that the moderately negative information (i.e., liquidity concerns) presented to auditors in a high business risk setting will not influence auditors' perceived Client OID. Furthermore, the desire to protect the organization from negative repercussions is expected to be more pervasive in a high business risk setting because improper assessments for those clients could lead to restatements or misstatement that are potentially more damaging for a company already experiencing poor financial performance.

Since prior research has shown that auditors are more conservative in high business risk settings (e.g., Pratt and Stice, 1994), it is expected that both internal and

external auditors will make more (less) conservative decisions in a high (low) business risk setting. However, since internal auditors are expected to experience higher levels of Client OID than external auditors, and since auditors with high Client OID are expected to make more conservative judgments in a high business risk setting, this study hypothesizes that internal auditors will make especially conservative judgments in the high business risk setting.

To test these hypotheses, this study utilizes a 2 x 2 x 2 mixed-subjects experiment in which 31 professional internal auditors and 33 professional external auditors completed a case involving a hypothetical audit situation. The participants were employed by/providing audit services to a client with high or low business risk. Client OID was measured using the Bamber and Iyer (2002) Organizational Identification Scale, which had been adapted to measure participants' OID towards either their hypothetical employer or audit client. The results support both the main effect hypothesis of auditor type on Client OID and the interactive hypothesis concerning auditor judgments in high and low business risk settings.

These findings have important implications for both researchers and practitioners. From a research perspective, this study provides initial evidence of the existence of a psychological attachment between auditors and their companies, and that this attachment might be used to better understand auditor judgments. Furthermore, these findings provide external auditors' who are considering relying more on internal auditors' work valuable experimental evidence concerning internal auditors' judgments.

The paper is organized as follows. The next section contains a literature review and develops the foundation for the hypotheses. The third section discusses the

experimental design, methodology, and the analyses employed to interpret the results. The fourth section presents the results of the experiment. The paper concludes with a discussion of the implications, limitations, and potential opportunities for future research.

2.0 Background and Hypotheses

2.1 External Auditors' Reliance on Internal Auditors' Work

Even though public companies are not required by any regulatory body to maintain an internal audit department, formal internal auditing functions have been maintained since the 1940s (Moeller 2004).³ However, while there are no SEC or Public Company Accounting Oversight Board (PCAOB) requirements concerning internal audit services, professional internal auditing standards require that internal auditors perform their duties objectively and independently.⁴ Specifically, the Institute of Internal Auditors' *Code of Ethics* requires internal auditors to evaluate information objectively while not being unduly influenced by their own interests (IIA Code of Ethics 2000).

Even though internal auditors are theoretically providing management with objective judgments, prior research (e.g., Glover et al. 2006) suggests that external auditors are hesitant in some settings to rely on internal auditors' work. Because reliance on internal audit can affect nature, timing, and extent of the annual audit program (Gramling et al. 2004), discretion should be utilized when determining if reliance on internal audit work will increase the efficiency of the audit, yet not compromise quality.

³ While no legislation exists for public companies in general, the New York Stock Exchange requires all companies traded on its exchange to maintain an internal audit department.

⁴ Although internal auditors are not required to be independent of the entity as a whole (as external auditors are), the IIA's *Standards for Professional Practice of Internal Auditing* requires some level of independence (e.g., internal auditors are to be independent of the function they audit).

Prior research suggests several factors that influence external auditor reliance on internal auditor work. For example, prior research suggests that internal auditors' primary role and compensation structure (DeZoort et al. 2001), external auditors' perceived levels of internal audit objectivity and competence (Krishnamoorthy 2001), as well as internal audit availability (Felix et al. 2001) all affect external auditor reliance on internal audit. Furthermore, Glover et al. (2006) propose that external auditors are less likely to rely on in-house internal auditors than outsourced internal auditors, especially when the task is subjective (rather than objective).

While this research documents a history of hesitancy to rely on internal audit work, the adoption of AS5 and a growing body of research suggests that external auditors will begin relying more heavily on internal audit work. For example, Bailey et al. (2003) suggest that since the passage of SOX, the internal audit function is being perceived as an integral part of the solution to breakdowns of business reporting, internal control, and ethical behavior. In addition, Gramling et al. (2004) suggest that reliance on internal audit has taken on increased importance in today's auditing environment, since internal and external auditors have become more aligned and developed deeper relationships since the passage of SOX.

Because of the increased potential of external auditor reliance on internal auditor work, this study attempts to investigate whether internal and external auditors objectively evaluate audit situations similarly in a post-SOX environment. Although both types of auditors should be objective in their assessments, prior research posits that internal auditors' objectivity can be compromised in certain situations. For example, Brody and Kaplan (1996) suggest that internal audit objectivity can be affected by their involvement

in the budgeting process. Even membership in the IIA (Harrell et al. 1989) and professional certification (Berry et al. 1987) has been linked to internal auditors' increased ability to maintain an objective viewpoint.

In addition to these factors, social psychology research indicates that there is also a potential for auditor objectivity concerns based on whether the auditor is engaged as external or internal auditors. Specifically, the psychology research indicates that internal auditors potentially identify more with the firm being audited than external auditors, potentially causing an undue influence on their assessments. The psychological link to the firm being audited is referred to as Organizational Identification (OID), an applied construct from the Social Identification Theory.

2.2 Social Identification Theory and OID

Ashforth et al. (1989) state that individuals seek to classify themselves into various social categories (e.g., age cohort, gender, religious affiliation) to help define their personal identities. Psychology research has examined this process at length, and has developed a corresponding theory called Social Identification Theory. On a rudimentary level, Social Identification Theory states that individuals will identify with a group if they perceive their fate to be intertwined with the fate of the group (Ashforth and Mael 1989; Tolman 1943). This literature has been extended into an organizational setting by examining the psychological attachment that one has with an organization, that is, the extent to which individuals perceives the organization's successes and failures as their own (Bamber and Iyer 2002). The process of forming a psychological attachment with an organization is referred to as Organizational Identification (OID).

OID is an applied construct of Social Identification Theory that examines the extent to which individuals defines their identities vis-à-vis an organization. Prior accounting research has investigated the effects of OID in auditing firms, and indicates that OID potentially influences auditors' turnover rates (e.g., Bamber and Iyer 2002). However, this study is the first to investigate whether OID influences auditor judgments.

2.3 Internal and External Auditors' OID with the Firm Being Audited

Internal auditors are, by definition, more embedded within an organization than external auditors. The functions and responsibilities of internal auditors today are much more intertwined in the daily operations (e.g., operational audits) of the client than external auditors. Bou-Raad (2000) asserts that the roles of internal auditors are more than a traditional external audit, in that internal audit functions provide more proactive, value-added activities that allow internal auditors to establish informal partnerships with management. Furthermore, Carcello et al. (2005) suggest that internal auditors' interaction with audit committees has significantly increased since SOX. External auditors, on the other hand, are not able to embed themselves as deeply within their clients' daily operations. External auditors also have limited exposure to the client compared to internal auditors because their role is typically performed during only a few months of the year.

Furthermore, Knippenberg and Schie (2000) suggest that the more employees are involved in the operations of their organizations the more organizational identification that will be perceived. Because of the greater exposure that internal auditors have to management, the greater time spent on-site, and the greater daily involvement in the clients' operations, it is expected that internal auditors will identify themselves as part of

the organization to a greater extent than external auditors. This study, therefore, hypothesizes the following relationship:

H₁: Auditors engaged as internal auditors will have greater Client OID than those engaged as external auditors.

2.4 Client OID and Judgments

Understanding whether internal and external auditors experience different levels of Client OID is important because both internal and external auditors are required to perform their duties objectively (AICPA Code of Professional Conduct 1988; IIA Code of Ethics 2000). However, prior psychology research indicates that, once individuals have psychologically joined a group, they have difficulty objectively evaluating information related to that group (Brewer 1999). Prior research also suggests that individuals who identify with a group are more willing to protect members of that group (Thompson 1995). While some might interpret auditors' increased propensity to protect the well being of a client as an indication that an auditor might give the client the 'benefit of doubt', an alternative interpretation exists given auditors' professional and social responsibilities.

Individuals who perceive high levels of Client OID experience the successes and failure of the organization as their own (Bamber and Iyer 2002). Accordingly, it is expected that auditors who have high levels of Client OID are expected to be more conservative in their judgments as to protect the organization (and essentially their own self-esteem) from the negative repercussions of misstatements or restatements.

Prior research also suggests that individuals' OID is insensitive to moderately negative information about the organization (Einwiller et al. 2006). Therefore, it is expected that the moderately negative information (i.e., liquidity concerns) presented to

auditors in a high business risk setting will not influence auditors' perceived Client OID. Furthermore, the desire to protect the organization from negative repercussions is expected to be more pervasive in a high business risk setting because improper assessments for those clients could lead to restatements or misstatement that are more damaging for companies already experiencing poor financial performance.

Since prior research has shown that auditors are more conservative in high business risk settings (e.g., Pratt and Stice, 1994), it is expected that both internal and external auditors will make more conservative decisions in a high business risk setting than a low business risk setting. However, since internal auditors are expected to experience higher levels of Client OID than external auditors, and since auditors with high Client OID are expected to make more conservative judgments in a high business risk setting, this study hypothesizes that:

H₂: Internal auditors will make especially conservative assessments in the high business risk setting

3.0 Method

3.1 Participants

Responses were collected via an online experiment from 32 professional internal auditors and 33 professional external auditors. Approximately 450 professional internal auditors and 130 professional external auditors were sent email requests for participation in the experiment. Both emails contained a hyperlink directing participants to an online version of the experiment. The email request received approximately a 7 percent internal auditor response rate; the 32 internal auditor respondents consisted of 9 staff, 4 seniors, 3

managers, 2 senior manager, and 10 director level auditors.⁵ The email request received approximately a 25 percent external auditor response rate; the 33 external auditor respondents consisted of 16 staff, 6 seniors, 5 managers, 1 senior manager, and 3 partners. Participants were directed to the internal or external auditor treatment conditions based on their current auditor type (i.e., internal or external auditor). After the appropriate type treatment had been determined, participants were systematically directed to one of the two client business risk treatment conditions. All participants were prevented from submitting multiple responses from a single IP address.

3.2 Experimental Task

Whether the participant was an internal or external auditor (*TYPE*) was determined by requesting the participant's current auditor type prior to the audit scenario being given. Internal (external) auditor participants were asked to assume that they were employed by (engaged to perform external audit services for) Tango Sierra, a hypothetical publicly-traded prescription drug manufacturer.

Client business risk (*RISK*) was investigated by manipulating whether the hypothetical client had the ability to mitigate the reduction in sales due to a prescription drug patent expiration. If the company was able (unable) to off-set the reduction in sales, the company would be able (unable) to pay current debts as they come due.

The participants were asked to perform both a user access control and a bad debt control assessment. Participants were asked to perform these two tasks to compare their assessments of a relatively objective control deficiency, and one that is more subjective because prior literature (Glover et al. 2006) suggests that external auditors rely on internal auditors to different extents depending upon task subjectivity. Accordingly, this

⁵ Two internal and two external auditors did not respond to the experience demographic questions.

experiment attempted to investigate the assessments of internal and external auditors for tasks with varying levels of subjectivity.

In the objective internal control failure, auditors were presented with a scenario in which Tango Sierra did not remove terminated users from their system in a timely manner (i.e., within five days of termination). This task was considered to be an objective evaluation since the participants were told that Tango Sierra's internal control policy states that terminated employees should have user access revoked within five days.

In the subjective scenario participants were told that, "Tango's internal control policy states that significant accounts receivable balances over 120 days past due should be reviewed by the controller, and an appropriate amount should be written off as uncollectible." The participants were also informed that their team discovered a large customer balance over 180 days past due, but that Tango's controller has a good relationship with the customer and expects the balance to be collected in full within the next few months. The task is considered subjective due to only a broad policy guideline being given and an "appropriate" write-off amount being left up to the auditors to decide.

3.3 Responses

To control for order effects, participants were randomly assigned to receive either the user access control assessment or the bad debt control assessment first. After reading the user access background information, participants were asked on a 7-point Likert-type scale (with "1 = strongly disagree" and "7 = strongly agree"), if the company's controls over timely revocation of user access were operating effectively (*OP_EFF*). Participants were also asked questions related to Tango's access controls being able to prevent or quickly detect a material misstatement, the likelihood that the

findings constitute a material weakness, and how the findings will impact the amount of audit evidence required.

After reading the bad debt background information, participants were asked to estimate, as a percentage, the amount that should be written-off as uncollectible (*AR_WRITEOFF*). Participants were also asked the likelihood that the controller would agree to their suggested write-off amount, the smallest percentage they would accept as reasonable, and the likelihood that Tango would collect the entire balance.

3.4 Measuring Client OID

After responding to the dependent measures, participants responded to a modified Bamber and Iyer (2002) Organizational Identification scale, which had been adapted to measure the participants' OID towards the client. An initial version of the scale used by the authors consisted of five questions, but a confirmatory factor analysis performed by the authors lead to the deletion of two questions. This study uses the remaining three questions, and modifies them to be appropriate given participants' auditor types.

The modified scale for internal (external) auditors consisted of (1) "If I worked for (audited) Tango Sierra, I would take criticism of Tango Sierra personally, (2) "If I worked for (audited) Tango Sierra, I would be interested in what others think about Tango Sierra.", and (3) "If I worked for (audited) Tango Sierra, I would take praises of Tango Sierra personally." Each question was measured on a 7-point Likert Type scale with "1 = Strongly Disagree" and "7 = Strongly Agree". The aggregated score from the three questions comprises *CLIENT_OID*.

4.0 Results

4.1 Manipulation Checks and Related Issues

To examine whether the *RISK* variable was adequately manipulated, participants were asked to describe the company's ability to pay its current debts as they come due. Participants responded using a 7-point Likert-type scale with "1 = Very Unlikely" and "7 = Very Likely". Statistical analysis indicates that participants attended to the liquidity issue presented in the case background, and that the company would be more likely pay its current debts as they come due in the low business risk treatment (Mean (M) = 5.12) than in the high business risk treatment (M = 4.10, T = 3.963, p < 0.01, two-tailed), indicating a successful manipulation.

To examine whether the *TYPE* variable was adequately manipulated, participants were asked during the case wrap-up section to indicate what role they were assigned to during the case (choices included Controller, External Auditor, In-House Internal Auditor, or Outsourced Internal Auditor). Of the 65 participants, 64 (98 percent) passed the *TYPE* manipulation check. For conservatism, the participant who failed the *TYPE* manipulation check was excluded from the statistical analysis, leaving 64 (31 internal and 33 external auditors) for hypothesis testing. The results were unaffected if the participant who failed the *TYPE* manipulation check was not excluded from the analysis. Panel A of Table 1 provides demographics for internal auditor participants, while Panel B provides demographics for external auditor participants used in hypothesis testing.

[Please insert Table 1 about here]

Overall, participants viewed the scenario as realistic (M = 5.41 on a 7-point scale with "1 = not at all realistic" and "7 = very realistic"). Other analyses indicate that the

responses were not sensitive to various factors, including experience, education level, professional certification, and gender. Additionally, because each participant was asked to evaluate two scenarios, an analysis was conducted to ensure that results were not sensitive to order effects.

4.2 Primary Analysis

Hypothesis 1 predicts that internal auditors will perceive a greater level of Client OID. Table 2 shows that, consistent with Hypothesis 1, *CLIENT_OID* is significantly greater for internal auditors ($M = 15.07$) than for external ($M = 9.02$, $t = 9.02$, $p < 0.01$). Additionally, each component of *CLIENT_OID* was significantly greater for internal auditors than external auditors.⁶ Participants' responses also indicate that internal auditors perceive higher levels for each component of *CLIENT_OID*. Specifically, internal auditors are more likely to take criticism of the client personally ($M_{int} = 3.97$, $M_{Ext} = 2.24$, $t = 4.11$, $p < 0.001$), be interested in what others think of the client ($M_{int} = 6.10$, $M_{Ext} = 4.39$, $t = 5.05$, $p < 0.001$), and take compliments of the client personally ($M_{int} = 5.00$, $M_{Ext} = 2.39$, $t = 7.14$, $p < 0.001$) than external auditors.

[Please insert Table 2 about here]

This study investigates two primary dependent variables, one which represents an objective evaluation (*OP_EFF*) and another that represents a subjective (*AR_WRITEOFF*) evaluation. Hypothesis 2 predicts a significant interaction *TYPE* \times *RISK*; that is, both internal and external auditors will make more conservative decisions in a high business risk setting than a low business risk setting, however, internal auditors will make especially conservative assessments in the high business risk setting.

⁶ *CLIENT_OID* also had a Cronbach's Alpha of 0.80.

First, inconsistent with Hypothesis 2, ANOVA results (untabulated) suggest that *Type* ($F = 1.17, p = .283$ two-tailed), *RISK* ($F = 2.13, p = 0.149$, two-tailed), or *TYPE* \times *RISK* ($F = 0.64, p = .21$, one-tailed) did not influence internal and external auditors evaluations of objective internal control deficiencies. While the analyses indicate that both internal and external auditors assess deficient controls as ineffective, it should be noted that internal auditors ($M = 4.03$, where “1 = Strongly Disagree” and “7 = Strongly Agree”) were more likely than external auditors ($M = 3.21, F = 3.41, p = 0.07$, one-tailed) to interpret the access control deficiency as a material weakness.

Second, Panel A of Table 3 presents the ANOVA results for Hypothesis 2 testing concerning *AR_WRITEOFF*; Panel B presents the cell means, factor means, and overall mean for *AR_WRITEOFF*. Consistent with Hypothesis 2, the results indicate a significant *TYPE* \times *RISK* interaction ($F = 2.37, p = 0.06$, one-tailed). Specifically, that while both internal and external auditors made more conservative estimates in the high business risk treatment than in the low business risk treatment, internal auditors made especially conservative estimates. Figure 1 graphically depicts the *TYPE* \times *RISK* interaction.

[Please insert Table 3 about here]

[Please insert Figure 1 about here]

4.3 Supplementary Analysis

Supplementary analyses were performed to provide further insight into the results. First, while ANOVA results suggest that the *TYPE* \times *RISK* interaction is not affected when controlling for participant experience, an analysis was performed to investigate the effects of experience (*EXP*) on *CLIENT_OID*. A regression analysis indicated that *EXP*

was significantly, positively related to *CLIENT_OID* ($B = 0.34$, $t = 5.43$, $p < 0.01$, two-tailed). Furthermore, since the internal auditor participants had significantly higher experience levels than the external auditor participants ($F = 8.714$, $p < 0.01$, two-tailed), a regression analysis was performed independently for both internal and external auditors to ensure that the association between *EXP* and *CLIENT_OID* was not an artifact of internal auditor participants having more experience than external auditors.

Independent regression analyses suggest that the positive association between *EXP* and *CLIENT_OID* remains significant even when independently regressing internal and external auditors. Specifically, both internal auditors' ($t = 3.99$, $p < 0.01$, two-tailed) and external auditors' ($t = 2.16$, $p = 0.04$, two-tailed) experience levels are significantly positively associated with *CLIENT_OID*. These results suggest that as auditor experience increases, he/she will be more likely to identify with the organization being audited.

Second, additional analyses were performed to understand the results' sensitivity to participants' perceived levels of *CLIENT_OID*. Specifically, a Baron and Kenny (1986) mediation analysis was performed; however, the results indicate that neither *AR_WRITEOFF* nor *OP_EFF* was mediated by the level of *CLIENT_OID* perceived by the client. Future research might consider the effects of employer OID (i.e., auditors' OID with their audit firm rather than the audit client) on auditor judgment.

Third, an ANOVA test was conducted on participant responses to the smallest percentage that management could write-off, which they would still consider reasonable. The results confirm the primary results found for *AR_WRITEOFF*. Specifically, the results (untabulated) indicate that both internal and external auditors make more conservative decisions in the high business risk treatment than in the low business

treatment, however, internal auditors make especially conservative decisions in the high business risk condition compared to external auditors ($F = 1.91$, $p = .085$, one-tailed).

Finally, to control for economic repercussions for the participant's employing organization (*NEG_REP*), participants were asked, "The likelihood that Tango Sierra (my auditing firm) would experience negative repercussions (e.g., economic or reputation damages) if Tango Sierra released financial statements that were later found to be materially misstated is". Participants responded on a 7 point Likert-type scale, with "1 = Very Low" and "7 = Very High". While *BUS_RISK* did not significantly influence *NEG_REP*, ANOVA results suggest that internal auditors ($M = 6.13$) perceived greater levels of *NEG_REP* than external auditors ($M = 5.45$, $F = 4.93$, $p = 0.03$, two-tailed). While the results suggest that internal auditors perceived greater employer negative repercussions for materially misstated financial statements than external auditors, the primary results were not influenced when controlling for *NEG_REP*.

5.0 Discussions and Conclusion

5.1 Implications

This paper reports the results of an experiment that examines the effects of auditor type and client business risk on subjective and objective auditor judgments. Additionally, this study is the first to propose that Organizational Identification could provide insight into auditor judgments, and that auditors' perceived levels of Client OID could explain differences in internal and external auditor judgments. This study hypothesizes, and provides results that suggest, that internal auditors will perceive a greater level of Client OID than external auditors, and that this perceived level of Client OID could be used to understand internal auditors' conservatism in high business risk settings.

From a research perspective, this study provides initial evidence of the existence of a psychological attachment between auditors and their companies, and that this attachment might be used to better understand auditor judgments. While the results of this study were unable to suggest that Client OID mediates auditor judgments, researchers could still benefit from understanding that internal and external auditor experience different levels of Client OID, and that these differences provide an alternative to economic rationales when investigating differences in subjective auditor judgments.

Additionally, these results provide relevant experimental evidence to practitioners considering relying more heavily on internal auditors' work due to the adoption of AS5. Specifically, these results suggest that internal and external auditors make similar judgments in objective situations, and that in some subjective situations (i.e., high business risk settings) internal auditors make more conservative judgments than external auditors. Accordingly, these findings provide valuable experimental evidence that external auditors' increased reliance on internal auditors' work should not make external auditor judgments any less conservative.

5.2 Future research opportunities

While this study provides a preliminary investigation of the effects of Client OID on auditor judgments, future research could continue to investigate the effects of Client OID. Specifically, researchers might consider investigating the level of Client OID perceived by outsourced internal auditors, and how dual organizational identification influences judgments in high and low business risk settings. Additionally, future research could investigate compare how external auditors identify with both their clients and their

audit firm, and how this relationship influences auditor judgments. Finally, while this study suggests that experience is positively related to Client OID, the relationship between experience and Client OID is a potential foundation for future research.

5.3 Limitations

The results of this study should be considered in light of two limitations. First, while the results were robust to participant experience, the internal auditor participants did have a significantly higher level of experience than the external auditor participants. Future research might aim to analyze a particular auditor position rather than simply auditor type (i.e., internal or external). Second, as mentioned earlier, Client OID did not mediate the differences in auditor judgments. Accordingly, the relationship between internal and external auditor judgments and Client OID should be interpreted cautiously, and not overstated.

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Figure 1
The Impact of Business Risk and Auditor Type
on Auditor AR Write-Off Estimations

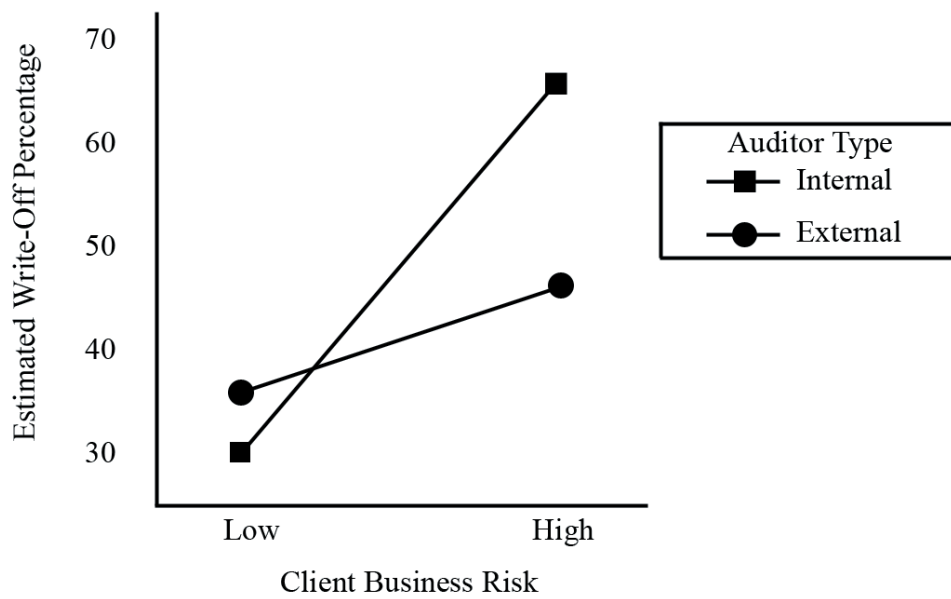


Figure 1 summarizes the observed effects of client business risk and auditor type on estimated write-off percentages.

TABLE 1
Participant demographics

Panel A: Experience Demographics for Internal Auditors

	Sr.					
	Staff	Senior	Manager	Manager	Partner	All*
n	9	4	3	2	10	28
Years	1.44	3.50	6.67	10.00	21.70	10.14
(SD)	(0.53)	(1.00)	(1.15)	(0.00)	(6.56)	(9.86)
Females	4	3	1	2	6	16
Males	5	1	2	0	4	12

Panel B: Experience Demographics for External Auditors

	Sr.					
	Staff	Senior	Manager	Manager	Partner	All*
n	16	6	5	1	3	31
Years	1.19	3.50	7.40	9.00	15.67	4.29
(SD)	(0.40)	(0.55)	(0.89)	(---)	(3.21)	(4.63)
Females	9	4	4	0	0	17
Males	7	2	1	1	3	14

* 2 internal and 2 external auditors did not respond to experience demographic questions.

TABLE 2
Hypothesis 1 test results
(df = 62)

<u>Client OID Question</u>	<u>Internal Auditors</u>	<u>External Auditors</u>	<u>t</u>	<u>p-value</u>
“If I worked for (audited) Tango Sierra, I would take criticism of Tango Sierra Personally.”	3.97 (1.96)	2.24 (1.35)	4.11	<0.001
“If I worked for (audited) Tango Sierra, I would be interested in what others think about Tango Sierra.”	6.10 (0.83)	4.39 (1.69)	5.05	<0.001
“If I worked for (audited) Tango Sierra, I would take compliments about Tango Sierra personally”	5.00 (1.41)	2.39 (1.49)	7.14	<0.001
Total <i>CLIENT_OID</i>	15.07 (3.32)	9.02 (3.64)	6.92	<0.001

Variable Coding:

Measured on a 7-point Likert Type scale with “1 = Strongly Disagree” and “7 = Strongly Agree”.

TABLE 3
Hypothesis 2 test results
(n=63)

Panel A: ANOVA results for *AR_WRITEOFF*

<u>Variable</u>	<u>Hypothesis</u>	<u>F</u>	<u>p-value*</u>
<i>TYPE</i>	-	0.89	0.35
<i>RISK</i>	-	5.81	0.02
<i>TYPE x RISK</i>	H ₂	2.37	0.06

Panel B: Cell means (SD) [n] for *AR_WRITEOFF*

<i>SIG x REACT</i> (p = 0.06)		<i>RISK</i> (p = 0.02)		
<i>TYPE</i> (p = 0.35)	Low	High	Overall	
Internal	31.63 (32.97) [16]	66.07 (39.62) [14]	47.70 (39.64) [30]	
External	36.82 (29.14) [17]	44.44 (36.57) [16]	40.52 (32.65) [33]	
Overall	34.30 (30.67) [33]	54.53 (38.93) [30]	43.94 (36.03) [63]	

* *p-values are one-tailed for TYPE * RISK only*

Variable Coding:

AR_WRITEOFF = Percentage of a potential bad debt that participants thought should be written-off.

RISK = Client business risk; low or high

TYPE = Type of auditor the participant was (measured); internal or external

**A Case
Investigating
Auditor
Judgments**

Auditor:

The following materials describe an audit case concerning a fictitious company. Please carefully read the information provided and draw on your experiences to answer each question to the best of your ability.

I could not anticipate everyone's information needs, but I have tried to provide as much relevant information as possible without making the case too long. The case should require about 15 minutes to complete.

Please complete the materials in the order provided; do not look ahead or change previous answers.

Your responses are **anonymous** and will be analyzed only after being combined with other participants' responses. No attempt will be made to identify you or your employer. Your participation is requested on a **strictly voluntary basis**. Completing the materials affirms your willingness to participate.

If you have any additional comments or questions about the study, or would be interested in having the results of this study sent to you, please direct your requests to:

Thank you for your time, participation, and candid responses.

Your participation is crucial to the success of this study.

Auditing Tango Sierra:

[External Audit Condition]

Assume that you work for ABC Audit Firm and are a member of the audit team that is performing the external audit of Tango Sierra Inc., a client your firm has been auditing for several years.

[In-house Internal Audit Condition]

Assume that you work for Tango Sierra Inc. in its internal audit department (i.e., you are an in-house internal auditor employed by Tango Sierra).

[All]

Tango Sierra is a publicly-traded manufacturer of prescription drugs that has recorded net profits for the last three years, and has averaged approximately \$500 million in annual revenues during this time.

Tango Sierra historically has received standard, unqualified opinions for both its financial statements and internal controls.

Both the internal audit department and external audit team reports and has direct access to Tango Sierra's Audit Committee.

Drug Patent Expiration:

Earlier this year, a patent protecting one of Tango Sierra's best-selling drugs expired.

[Low Business Risk]

Fortunately, Tango Sierra's research & development efforts have allowed them to take two new drugs to market this year. The revenues generated by the two new drugs will be sufficient to make up for the anticipated reduction in sales caused by the patent expiration.

Consequently, Tango Sierra expects that it easily will be able to pay its current debts and current portion of long-term debts as they become due.

[High Business Risk]

Unfortunately, while Tango Sierra's research & development efforts have allowed them to take two new drugs to market this year, the revenues generated by the two new drugs will not be sufficient to make up for the anticipated reduction in sales caused by the patent expiration.

Consequently, Tango Sierra expects that it may have some difficulty paying its current debts and current portion of long-term debts as they become due.

[All]

Audit Task:

The following pages present two hypothetical audit scenarios. Please read the scenarios and answer the related questions.

[Counter-Balanced 1/2]
Account Receivable analysis

Tango's internal control policy states that significant accounts receivable balances over 120 past due should be reviewed by the controller, and an appropriate amount should be written off as uncollectible.

While analyzing the aging report for Tango Sierra's accounts receivable, your audit team discovered a large customer balance (i.e., \$6,500,000) that was over 180 days past due.

The balance belongs to a long-standing Tango Sierra customer that previously has never failed to pay on a timely basis, but has been experiencing cash flow problems for the past few months.

According to Tango Sierra's controller, Tango has a good relationship with this customer, and ultimately expects that this balance will be collected in full within the next few months.

**Based on your understanding of the Accounts Receivable analysis
please answer the following questions.**

- Please answer the following questions *in the order they are presented*.
- Do *not* change your responses once they are recorded.
- You *may* refer back to the case materials when answering the questions in this section.

1. The percentage of the \$6,500,000 that I believe should be written-off as uncollectible is

_____ %

2. The likelihood that Tango Sierra's controller would agree to write-off the amount I suggested in Question 1 is

Very
Very
Low
High

1 2 3 4 5 6 7

3. The smallest percentage of the \$6,500,000 that management could write off as uncollectible, which I would still consider reasonable is

_____ %

4. The likelihood that Tango Sierra will collect the entire \$6.5 million is

Very
Very
Low
High

1 2 3 4 5 6 7

[Counter-Balanced 2/2]

An Examination of Access Controls

In accordance with Sarbanes-Oxley, your team is assessing the operating effectiveness of Tango Sierra's internal controls over financial reporting.

The following is a summary of the results of an examination of Tango Sierra's Access Controls:

- Tango Sierra's internal control policy states that users should have their access to Tango Sierra's network and applications revoked within five (5) days of the user's termination.
- During testing, your audit team discovered that a few terminated users with access (including remote login) to the accounts payable system did not have their access to Tango Sierra's network and applications revoked within five (5) days after their termination.
- Tango Sierra's IT Director explained that the access was not revoked on a timely basis because the human resources department (HR) did not send the termination notifications to the IT department in a timely manner.
- The IT Director added that the users' privileges were revoked immediately after the delinquent termination notification was received.

**Based on your understanding of the Access Controls analysis,
please answer the following questions.**

- Please answer the following questions *in the order they are presented*.
- Do *not* change your responses once they are recorded.
- You *may* refer back to the case materials when answering the questions in this section.

1. Tango Sierra's controls over timely revocation of user access are operating effectively.

Strongly
Strongly
Disagree
Agree

1 2 3 4 5 6
7

2. The likelihood that Tango Sierra's access controls could **not** prevent or quickly detect a material misstatement is

Very
Very
Low
High

1 2 3 4 5 6 7

3. The likelihood that the findings related to user access constitute a material weakness is

Very
Very
Low
High

1 2 3 4 5 6 7

4. How will the findings affect the amount of audit evidence required to obtain reasonable assurance that accounts payable is properly stated?

No
Significantly
Change
Increase

1 2 3 4 5 6
7

**Please complete these questions as if
you were engaged to perform services for [employed by] Tango Sierra.**

1. If I worked for [audited] Tango Sierra, I would take criticism of Tango Sierra personally.

Strongly
Strongly
Disagree
Agree

1 2 3 4 5 6
7

2. The likelihood that Tango Sierra [my auditing firm] would experience negative repercussions (e.g., economic or reputation damages) if Tango Sierra released financial statements that were later found to be materially misstated is

Very
Very
Low
High

1 2 3 4 5 6 7

3. If I worked for [audited] Tango Sierra, I would be interested in what others think about Tango Sierra.

Strongly
Strongly
Disagree
Agree

1 2 3 4 5 6
7

4. The degree to which my audit decisions could impact the welfare of Tango Sierra's investors and creditors is

Very
Very
Low
High

1 2 3 4 5 6 7

5. If I worked for **[audited]** Tango Sierra, I would take compliments about Tango Sierra personally.

Strongly
Strongly
Disagree
Agree

1 2 3 4 5 6
7

6. My ability to influence decisions made by Tango Sierra's management would be

Very
Very
Low
High

1 2 3 4 5 6 7

Disagree
Agree

1 2 3 4 5 6
7

8. During my career, I have examined accounts receivable balances

Strongly
Strongly
Disagree
Agree

1 2 3 4 5 6
7

9. Highest educational level attained:

Bachelor's degree
 Some graduate study
 Graduate degree
 Postgraduate study

10. Age: _____ Years

11. Gender: _____ Male _____ Female

Case Wrap-Up
[External Auditor Condition]:

- The following questions concern your professional experience.
- This information will not be used in any way to identify you or your employer.

1. Are you a CPA? ___ Yes ___ No

2. How long have you been a public accountant? _____ Years _____ Months

3. Current position in a public accounting firm:
 ___ Intern
 ___ Staff Auditor
 ___ Senior
 ___ Manager
 ___ Senior Manager
 ___ Partner/Principal
 ___ Other (_____)

4. What portion of your engagements are external audit engagements?

None All

1 2 3 4 5 6 7

5. I typically _____ rely on work performed by internal auditors.

Never Always

1 2 3 4 5 6 7

6. During my career, I have reviewed IT General Controls

Strongly
Strongly
Disagree
Agree

1 2 3 4 5 6
7

7. During my career, I have examined accounts receivable balances

Strongly
Strongly
Disagree
Agree

1 2 3 4 5 6
7

8. Highest educational level attained:

- Bachelor's degree
- Some graduate study
- Graduate degree
- Postgraduate study

9. Age: _____ Years

10. Gender: _____ Male _____ Female

[All]

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS EXPERIMENT!

If you have any additional thoughts, please write them here: