



University of
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Amherst

The Power of Psychological Ownership: How Managers' "Sense of Possession" and Auditor's Conversation Starters Influence Managers' Response to Audit Inquiry

Item Type	Dissertation (Open Access)
Authors	MacKenzie, Nicole
DOI	10.7275/14203892
Rights	Attribution-NonCommercial-NoDerivatives 4.0 International
Download date	2025-05-14 09:05:04
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Link to Item	https://hdl.handle.net/20.500.14394/17855

THE POWER OF PSYCHOLOGICAL OWNERSHIP: HOW MANAGERS' "SENSE
OF POSSESSION" AND AUDITOR'S CONVERSATION STARTERS INFLUENCE
MANAGERS' RESPONSE TO AUDIT INQUIRY

A Dissertation Presented

by

NICOLE L. MACKENZIE

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

MAY 2019

Management

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DEDICATION

To my husband, Cam, for being my rock these past 5 years.

To my mom and dad, for being my “perfect fans”.

ACKNOWLEDGEMENTS

First, I would like to thank my dissertation chair. Chris, I feel extremely grateful to have had the opportunity to have you as my advisor. I learned more from you through this process than I could have ever imagined. You pushed me to be better than I thought I could be. Thank you for investing so much time in me during the dissertation process and during seminars throughout the program. Your guidance has shaped me into the researcher I am today.

Next, I would like to thank my dissertation committee members: Aaron, Andrew, Bradley, and Elaine. Aaron, thank you for all the advice over the years. You were that voice of encouragement and reason through the good times and the bad. Andrew, thank you for all the stats knowledge and providing invaluable feedback on my dissertation. Bradley, thank you for being a great mentor these past 5 years. I'm especially grateful for the support and confidence you provided me when I needed it the most. Elaine, thank you for being patient and never giving up on me. I learned so much from working with you during the program.

To my PhD program friends, I am incredibly blessed to have been in the program with such wonderful people. First and foremost, Jenny, Jess, and Mary Kate, words cannot describe how thankful I am to have gone through the program with you three. I will be forever grateful for our friendship, as I know finding a friendship like ours is rare, especially in a PhD program. Steve, thank you for taking me under your wing and being my big brother throughout this program. Your constant prayers and reminders of what is most important in life helped get me to this point. Yushi, you have constantly brought a smile and laughter to my life. Thank you for being a friend and a confidant these last 4

years. To Ryan, Jeff, Matt, Chez, Kyle, Scott, Aubrey, Ellen, Connor, and Cody, I enjoyed sharing an office with each and every one of you over the years. I am thankful for all the random conversations, laughter, and help throughout my time in the program. I look forward to seeing all of you at conferences in the future (or at our random Skype lunches). To all the faculty at UMass, thank you for the feedback and support throughout the program.

I also want to thank my family and non-research friends. Thank you for all the support and encouragement throughout the program and helping me achieve my dreams. You helped pick me up on the bad days and celebrate my victories on the good days. I am truly lucky to have so many wonderful people in my life. To my family, you have always been there to support me in achieving my dreams no matter how crazy they sound and getting a PhD was no different. Thank you for the prayers, words of encouragement, and sacrifices to get me to where I am today. Finally, I could not have succeeded without all the love and support from my husband, Cam, and our two dogs, Ayla and Kona. Cam, you have sacrificed your career these past five years to let me achieve my dream. Thank you for being here for me every step of this journey and always pushing me not to give up when I wanted to execute our Plan B and move somewhere tropical to open “Scuba and Scones.” I could not have asked for a better partner (and travel buddy) in life. Ayla and Kona, thank you for being the best doggies. Your constant love and need for attention forced me to step away from work and enjoy the beauty of Amherst. Our walks on the trails are some of my best memories during these past five years.

ABSTRACT

THE POWER OF PSYCHOLOGICAL OWNERSHIP: HOW MANAGERS’ “SENSE OF POSSESSION” AND AUDITOR’S CONVERSATION STARTERS INFLUENCE MANAGERS’ RESPONSE TO AUDIT INQUIRY

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When audit issues arise, auditing standards require auditors to inquire with sources knowledgeable about the issue. Often these sources, typically client managers, are involved in decisions associated with the work related to the audit issue. As such, they may feel a sense of “ownership” over the related work. Psychological ownership can cause individuals to behave defensively when they feel their work is threatened. This defensive behavior may pose a challenge for auditors if client managers are less transparent during the audit process. I conduct an experiment to examine the effect of psychological ownership on managers’ interactions with the auditor and their willingness to disclose a potential audit issue. I find that client managers with higher psychological ownership are less likely to disclose the existence of an issue than client managers with lower psychological ownership. Further, I investigate the use of two different topics of small talk prior to the audit inquiry, as audit partners encourage auditors to engage in small talk to build relationships with client managers. I find that professional small talk,

which is common among business professionals, magnifies managers' defensive behavior. On the other hand, social small talk is effective at mitigating the defensive behavior exacerbated by professional small talk, but not the defensiveness caused by psychological ownership. Additionally, I find that both professional and social small talk improves the social bond the client manager perceives with the auditor, compared to no small talk.

Keywords: auditor-client interactions; audit inquiry; psychological ownership; small talk

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*“Excuse me, I believe you have **MY** stapler...”*
– Milton, Office Space

CHAPTER 1

INTRODUCTION

Inquiry is an integral part of the audit process in order to obtain necessary audit evidence from client personnel (Trompeter and Wright 2010; Messier, Glover, and Prawitt 2017). Inquiry involves requesting information from both financial and non-financial client personnel to aid in conducting the audit. Auditing standards require auditors to consider the knowledge and experience of management from whom they obtain evidence (PCAOB AS 1105; PCAOB AS 2501; PCAOB AS 2502). Research shows that greater association with an item lead individuals to develop psychological ownership—the feeling that something is one’s own—over that item (Pierce, Kostova, and Dirks 2001; Piece, Kostova, and Dirks 2003). As such, client managers (hereafter, “managers”) with whom the auditors interact likely possess psychological ownership, to varying degrees, over the work relating to the audit issue. In this study, I experimentally investigate how managers’ psychological ownership over the work relating to the audit issue influences their disclosure of a potential audit issue during audit inquiry.

Psychological ownership causes individuals to feel “psychologically tied” to the target of ownership (Pierce et al. 2001). This connection to the target of psychological ownership is because individuals perceive the target as an extension of themselves and, thus, part of their identity (e.g., Belk 1988; Pierce et al. 2001). As individuals want to portray themselves in a positive manner, psychological ownership can influence downstream attitudes and behaviors related to the target of ownership (e.g., Van Dyne

and Pierce 2004; Avey, Avolio, Crossley, and Luthans 2009; Brown, Pierce, and Crossley 2014).

Survey research suggests a positive association between psychological ownership and disclosure of information that portrays the individual positively (Han, Chiang, and Chang 2010; Peng and Pierce 2015). However, when threatened, individuals engage in defensive behaviors in order to protect themselves and eliminate the threat (e.g., Dunning, Leuennberger, and Sherman 1995). Such defensive behaviors may lead to decreased disclosure of information relating to the target when the information is perceived negatively. When auditors inquire about a sensitive issue (e.g., a potential inventory write-down), managers with higher psychological ownership over the underlying issue may perceive this potential audit issue as a threat. I predict that managers with higher psychological ownership will be less likely to disclose a potential audit issue (i.e., negative information) compared to managers with lower psychological ownership in order to protect themselves.

Although psychological ownership may lead to differences in judgments during audit inquiry, audit partners surveyed in Bennett and Hatfield (2018) indicate they encourage their auditors to engage in small talk prior to discussions with managers in an effort to develop relationships. Prior research shows there are benefits to the audit process when managers' perceive a positive relationship with auditor. For example, Richard (2006) finds that auditors obtain information quicker when they have a positive relationship with the manager. Thus, I also investigate how two different topics of small talk prior to audit inquiry influence managers' perceptions of a social bond with the auditor and their subsequent willingness to disclose an issue to the auditor.

Work-related topics (“professional small talk”) are natural conversation starters in business settings, as this is common ground for the participants. However, while professional small talk can help build a relationship between the auditor and manager, it may have negative repercussions when preceding audit inquiry. Prior research shows that increasing the salience of a threatened identity can exacerbate defensive behavior (Sherman and Cohen 2006; Critcher and Dunning 2015). As a result, when managers have higher psychological ownership and the auditors engage in professional small talk, I expect managers to react more defensively, reducing the likelihood they disclose the potential issue. On the other hand, professional small talk should have a minimal effect on managers’ willingness to disclose an audit issue when managers’ psychological ownership is lower, since they have less of a reason to respond defensively to the inquiry. However, regardless of psychological ownership, professional small talk should improve the relationship the manager has with the auditor.

Research on self-affirmation theory finds that highlighting an identity, not related to the threatened identity, minimizes defensive behavior by broadening the individual’s perspective (e.g., Steele 1988; Sherman and Cohen 2006). As such, non-work related topics (“social small talk”) might have the benefit of building relationships without increasing the salience of the identity related to the audit issue (and, in turn, mitigating defensiveness). When managers have higher psychological ownership over the work related to the issue, auditors’ use of social small talk prior to audit inquiry could potentially lessen managers’ defensive behavior by activating a non-professional identity. As a result, managers with higher psychological ownership may be less defensive and, in turn, more likely to disclose an audit issue. Similar to professional small talk, I expect

social small talk will have a minimal effect on managers with lower psychological ownership, since they have less of a reason to respond defensively to the inquiry. Also like professional small talk, social small talk should help improve the relationship the manager has with the auditor regardless of psychological ownership.

In order to test my predictions, I conduct a 2×3 between-participants experiment with experienced business professionals in the role of client managers. I examine the influence of psychological ownership on managers' likelihood to disclose a potential audit issue during inquiry. Additionally, I examine how small talk prior to the audit inquiry influences managers' disclosure responses. To test my hypotheses, I manipulate psychological ownership at two levels (higher psychological ownership and lower psychological ownership) and small talk at three levels (professional small talk, social small talk, and no small talk).

I find that higher psychological ownership leads managers to be less likely to disclose the existence of a potential audit issue than managers with lower psychological ownership. Further, when the auditor engages in professional small talk prior to the audit inquiry, managers with higher psychological ownership are even less likely to disclose an audit issue than with no small talk. As expected, professional small talk has no impact on client managers with lower psychological ownership. When the auditor engages in social small talk, I find that client managers with higher psychological ownership were not more likely to disclose an audit issue than when auditors do not use small talk, inconsistent with my expectations. However, unlike professional small talk, social small talk does not decrease managers' likelihood of disclosing an audit issue. In additional analyses, I find that social small talk and professional small talk develop stronger social bonds than no

small talk with the manager towards the auditor.¹ This suggests that auditors should use social small talk prior to audit inquiries, as social small talk does not decrease a manager's willingness to disclose an issue the way professional small talk does. Although social small talk does not reduce the impact of psychological ownership compared to no small talk, social small talk has the benefit of improving the social bond compared to no small talk.

My study makes important contributions to accounting researchers and practitioners. I contribute to the emerging literature examining how manager-level effects influence behavior in accounting contexts (e.g., Ali and Zhang 2015; Ham, Lang, Seybert, and Wang 2017). I extend this literature by examining how managers' psychological ownership, a manager-level effect, influences their disclosure of a financial reporting issue during audit inquiry. This finding is important as managers' initial judgments conveyed to auditors influence final values reported in the financial statements (Brown and Wright 2008; Hatfield, Houston, Stefaniak, and Usrey 2010).

This study adds to the auditing literature on the effects of social bonds from the manager perspective. Prior literature finds benefits to the audit process when the client perceives a social bond with the auditor. However, my study provides evidence that managers do not acquiesce to the auditor by divulging potentially threatening information just because of a social bond. This finding corroborates auditor statements in Guenin-Paracini et al. (2015) where auditors state that social bonds increase the likelihood of

¹ While not tested in this study, small talk may lead to the *auditor* developing a social bond with the client (in addition to the client developing a social bond with the auditor). While research has found negative effects of the auditor perceiving a positive relationship with the manager on the audit (e.g., Bauer 2015; Koch and Salterio 2017), research has also shown positive effects (e.g., Guenin-Paracini, Malsch, and Tremblay 2015; Bhattacharjee and Brown 2018). Thus, it is inconclusive whether auditor perceptions of a positive relationship with the manager have an overall positive or negative for the audit. However, literature examining social bonds from the manager perspective generally finds social bonds have a positive effect on the audit (e.g., Kachelmeier and Van Landuyt 2017; Daoust and Malsch 2018).

client personnel helping them during the audit, but this help only goes so far if there is not also a benefit to the client personnel.

Additionally, this study adds to the broader psychological ownership literature examining information disclosure. Prior survey literature suggests psychological ownership leads to greater disclosure of positive information; however, my study investigates the influence of psychological ownership on negative information disclosure. Given the importance of knowledge sharing within organizations, it is important to investigate how psychological ownership influences both positive and negative information disclosure. My study raises the possibility that psychological ownership could be detrimental if individuals are less likely to disclose negative information (and more likely to disclose positive information), misrepresenting the information on which others rely.

Further, my study offers insights to practitioners. Contrary to firms' expectations, I find that auditors' use of professional small talk in practice can actually *increase* managers' defensiveness when psychological ownership is high. This is a problem, especially given the audit partners' recommendations and auditors' use of professional small talk. However, I find that a simple change in the topic of small talk can mitigate managers' defensiveness, potentially increasing audit effectiveness.

The remainder of my paper is organized as follows. Chapter two includes background and hypothesis development. Chapters three and four describe the research design and report the results, respectively. Finally, chapter five discusses my findings and the related implications.

CHAPTER 2

BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Audit Inquiry

Inquiry involves the questioning of both financial and nonfinancial personnel by the auditor in order to obtain pertinent information (PCAOB AS 1105). As managers are often incentivized to report income opportunistically (e.g., Bernard and Skinner 1996), there is an implicit cost to providing income-reducing information to the auditor. As such, inquiry should be performed in a sensitive manner to obtain unbiased information, which is crucial because biased information could lead to different (and potentially inferior) auditor judgments (e.g., Hoffman and Patton 1997). Since certain audit evidence can only be obtained through inquiry, there is a potential for auditors to overlook a misstatement if they obtain biased information (AICPA 2017). As Trompeter and Wright (2010) find inquiry is frequently used and audit standards require auditors to inquire with knowledgeable sources (PCAOB AS 1105), I investigate how managers' psychological ownership over the work related to the issue influences their response to auditors during inquiry.

2.2 Psychological Ownership

Psychological ownership is the feeling of possession over an object, which can be tangible in nature, such as a stapler, or intangible in nature, such as an idea (Pierce and Jussila 2011).² Prior research finds individuals develop psychological ownership through three routes: decision-making responsibility over the target, investment of self into the target, and intimately knowing the target (e.g., Pierce et al. 2001). These routes lead

² Psychological ownership over a target does not have to be full possession. Individuals can develop psychological ownership if they perceive a portion of the target is theirs (Pierce et al. 2001).

individuals to develop psychological ownership over the related target, and individuals perceive items they own as extensions of themselves (e.g., Belk 1988). Thus, as a sense of psychological ownership emerges, the target of psychological ownership becomes part of the individual's identity (Pierce et al. 2001).

Recent research finds that psychological ownership influences workplace attitudes and behaviors. For example, psychological ownership increases job satisfaction and decreases turnover intentions (e.g., Bernhard and O'Driscoll 2011; Zhu, Chen, Li, and Zhou 2013). While psychological ownership leads to positive attitudes and behaviors, emerging literature has begun identifying negative consequences associated with psychological ownership. As individuals perceive the target of psychological ownership as part of their identity and want to protect their "self", they may react defensively if they perceive the target is threatened (e.g., Pierce et al. 2003; Brown, Lawrence, and Robinson 2005; Pierce and Jussila 2011). As a defense mechanism, individuals try to eliminate perceived threats (e.g., Dunning et al. 1995). For example, Brown, Crossley, and Robinson (2014) find individuals with psychological ownership are more likely to engage in claiming behavior (i.e., behavior to let others know the item is *yours*) when they feel the target is threatened.

When auditors inquire about an audit issue (e.g., a potential inventory impairment), managers with higher psychological ownership over the underlying issue may perceive this as a threat (i.e., an inadequacy in their ability). Research on psychological ownership conjectures that, in order to protect themselves, individuals may "prohibit transparency, collaboration, and information sharing" (Avey et al. 2009, p.176). Thus, I predict that managers with higher psychological ownership will be less

likely to disclose the existence of an issue than managers with lower psychological ownership.

H1: Managers with higher psychological ownership will be less likely to disclose the existence of a potential audit issue than managers with lower psychological ownership when auditors do not utilize small talk prior to the audit inquiry.

2.3 Small Talk

Although psychological ownership may lead to different judgments when auditors choose not to engage in small talk (H1), auditors are encouraged to engage in small talk prior to audit discussions to build a relationship with the manager. Relationship building between the auditor and manager is important given auditors' client-service role and the benefits associated with positive relationships to the audit (e.g., Richard 2006; Dodgson, Agoglia, Bennett, and Cohen 2018). The partners surveyed in Bennett and Hatfield (2018) express this sentiment and suggest that one way to build such relationships is through the use of pleasantries, or small talk. Because auditors rely on inquiry as a key procedure during testwork (e.g., Messier et al. 2017), small talk has the potential to influence outcomes from auditor-manager interactions as theory suggests that the topic of small talk could influence manager behavior (e.g., Steele 1988).

2.3.1. Professional Small Talk

In the auditor-manager relationship, auditors are likely to default to professional small talk for a number of reasons. First, work is one of the most common small talk conversations between individuals as individuals generally default to common-ground topics when engaging in conversations with other individuals (Cuncic 2018). The most obvious common ground in the auditor-manager relationship is the manager's company. Additionally, due to computer-mediated communication, partners believe auditors are not

developing relationships with client managers (Bennett and Hatfield 2018). In the absence of strong relationships, research finds that business professionals are more likely to use professional small talk than social small talk (Yang 2012). For these reasons, auditors are likely to use professional small talk, if engaging in small talk, prior to audit inquiry.

Prior research finds that reinforcing an individual's identity relevant to the threatened identity increases the individual's defensive behavior (e.g., Galinsky, Stone, and Cooper 2000; Stone and Cooper 2003). The literature suggests this is due to the individual focusing on the threatened identity (Sherman and Hartson 2011; Critcher and Dunning 2015). While exploring different contexts, prior literature shows that highlighting a threatened identity increases an individual's commitment to a prior position (e.g., Blanton, Cooper, Skurnick, and Aronson 1997; Sherman and Cohen 2006; Sivanathan, Molden, Galinsky, and Ku 2008).

This literature leads me to predict that auditors' use of professional small talk as a conversation starter will exacerbate defensive behavior for managers with higher psychological ownership. That is, managers with higher psychological ownership will be even less likely to disclose an audit issue when the auditor engages in professional small talk than when the auditor does not use small talk. However, I expect that managers with lower psychological ownership will be less defensive than those with higher psychological ownership and, thus, professional small talk will have minimal influence on their disclosure judgments.

H2: Psychological ownership and the use of small talk will interact such that the effect of psychological ownership on managers' likelihood to disclose an audit issue is greater when the auditor engages in professional small talk than no small talk.

2.3.2 Social Small Talk

Self-affirmation theory is based on the concept that individuals have a desire to maintain self-worth (e.g., Steele 1988; Sherman and Cohen 2006). As previously mentioned, when the self is threatened, individuals can deal directly with a threat by trying to eliminate it (e.g., Dunning et al. 1995). Or, as described by self-affirmation theory, individuals can cope with a threat by minimizing its effect to their self-worth (e.g., Steele 1988). Self-affirmation theory proposes that making salient other aspects of individuals' self-worth beyond the threatened identity broadens their perspective, in turn, reducing defensive behavior (e.g., Critcher and Dunning 2015).

Through the use of social small talk, auditors can purposefully direct the conversation to help them obtain a less defensive response from managers. When the auditor directs the conversation of small talk to something unrelated to the manager's professional identity, self-affirmation theory suggests this will induce more objective and less biased perspectives (e.g., Cohen, Aronson, and Steele 2000; Sherman and Cohen 2006). For example, the auditor can ask, "How are your children doing?" if they see pictures on the manager's desk or "How was the game last night?" if they see sports memorabilia in the manager's office. Prior literature shows self-affirmations unrelated to the threatened identity can decrease an individual's commitment to a position previously advocated (e.g., Sherman and Cohen 2006; Sivanathan et al. 2008; Cehajic-Clancy, Effron, Halperin, Liberman, and Ross 2011). As such, when auditors use social small

talk, I expect this to broaden managers' perspectives. In response, managers will demonstrate less defensive behavior, increasing the likelihood they will disclose an audit issue during inquiry.

Literature on self-affirmation theory finds that activating an alternate identity is only persuasive when the individual is defensive, so social small talk will have minimal influence if the audit inquiry itself is not perceived as threatening (e.g., Cohen and Sherman 2014; Dijkstra 2014). Thus, when managers have lower psychological ownership, I expect social small talk to have a negligible influence on their behavior because they are less likely to perceive the audit inquiry as threatening. Thus, I predict that managers with higher psychological ownership will be more likely to disclose an issue when the auditor engages in social small talk than when the auditor does not use small talk, and that managers with lower psychological ownership will demonstrate minimal difference in behavior between small talk conditions.

H3: Psychological ownership and the use of small talk will interact such that the effect of psychological ownership on managers' likelihood to disclose an audit issue is less when the auditor engages in social small talk than no small talk.

CHAPTER 3

METHOD

3.1 Participants

I recruited 183 business professionals enrolled in an online professional MBA program at a large university.^{3,4} Participants' mean age was 39, with 66.7% of participants being male. Since this MBA program targets working individuals, these participants are experienced business professionals with an average of 11 years of business experience and 6 years of managerial experience. A sample of participants' reported titles are supervisor, manager, assistant vice president, senior director, controller, and chief financial officer. These participants have comparable characteristics as those used in similar prior studies (e.g., Saiewitz and Kida 2018).

3.2 Task Overview

The experiment was administered electronically using Qualtrics. Participants began the experiment by assuming the role of a manager at A-Tech, Inc., a publicly-traded company based in the United States.⁵ Specifically, participants assumed the role of the manager of the medical products division, which is responsible for developing new products with cutting edge technology in the medical industry. Participants were presented with background information, where they are informed their division received funding for a new oxygen monitor that is in the final design phase of the research and development process. Participants then learned about the remaining design features of the

³ One participant did not answer the dependent variable of interest and was excluded from the analyses. Two participants were removed from the analyses for violating the construct of interest (e.g., discussing a work-related event during social small talk). Results are quantitatively similar if these individuals are included in the analysis.

⁴ The Institutional Review Board at the affiliated university approved the use of human participants for the experiment reported in this paper.

⁵ The experimental scenario is adapted, with permission, from Saiewitz and Kida (2018).

oxygen monitor that are still being finalized. I manipulated psychological ownership through participants' involvement in finalizing these remaining design features. After these features were finalized, participants were responsible for submitting the final design to manufacturing for production. At this point, I asked participants to rate their sense of ownership over the oxygen monitor.⁶

Participants then learned that three years had passed and they were given an update. In the update, participants learned that the auditors were concerned about the valuation of the oxygen monitor in the prior year due to a competitor being in the process of developing a superior product. Participants read that the auditors ultimately decided against a write-down in the previous year, but that they would likely revisit the issue with the auditor again in the current year. Participants then reviewed information related to the oxygen monitor valuation for the current year. The information portrayed the valuation issue as more severe in the current year than in the prior year. For example, participants were informed that the competitor is now taking pre-orders for their technologically superior product and some of the participant's customers have already started pre-ordering the product from the competitor. While the issue is more severe than the prior year, there was still some uncertainty with whether an adjustment is needed in the current year in order to examine these subjective areas of accounting.

After reviewing the inventory information, participants had a conversation with the auditor. This conversation is where I manipulated small talk. After engaging in small

⁶ I collected participants' perceptions of psychological ownership over the product at this point, as opposed to the end of the study, as individuals tend to avoid association with items that threaten their identity as a defense mechanism (Good and Abraham 2007). That is, participants may avoid association with the oxygen monitor and not answer the question truthfully if asked after they learn about this audit inquiry relating to the oxygen monitor. The placement of this question is consistent with prior research examining defensive behavior due to psychological ownership (Baer and Brown 2012).

talk (or at the beginning of the conversation for the no small talk condition), the auditor asks the participant to update him on the current valuation of the oxygen monitor. Participants then wrote a free-response to the auditor about the oxygen monitor valuation. Lastly, participants responded to post-experimental questions, including demographic questions.

3.3 Independent Variables

The two independent variables examined are the level of psychological ownership and the topic of small talk between the participant and the auditor. I manipulate managers' psychological ownership over the oxygen monitor at two levels: lower or higher psychological ownership. The second factor, small talk, is a three-level factor in which the first two levels manipulate whether the auditor uses professional or social small talk prior to audit inquiry. The third condition is a baseline condition for each level of psychological ownership in which there is no small talk. This results in a 2 x 3 between-participants design.

The first independent variable manipulates psychological ownership of the new oxygen monitor. In designing this manipulation, I rely on prior psychological ownership literature (e.g., Baer and Brown 2012; Kirk, Peck, and Swain 2018), which shows that decision-making responsibility is the strongest predictor of psychological ownership (e.g., Pierce and Jussila 2011). In all conditions, there are four remaining design features (relating to the product's interface, name, name placement, and color) that must be decided before the product is finalized. In the higher psychological ownership condition, participants are given two or three options for each of the four decisions. Participants must choose which option to incorporate in the final design and provide their rationale for

the choice. After making the design choices, participants view the finalized product design. At this point, participants are also given the option to revise their choices for the product or, if satisfied, they can submit the finalized design to manufacturing for production. In the lower psychological ownership condition, participants receive a memo in which they are informed of the finalized design choices and the rationales for the decisions. Participants then view the finalized product design and submit the finalized design to manufacturing for production.

In order to manipulate the topic of small talk, participants read the beginning of a conversation with the auditor. In all conditions, the conversation begins with the participant asking the auditor “Hi, Alex. How are you?”. In the professional small talk condition, the auditor replies describing how busy work has been. In addition, the auditor mentions recently receiving recognition for teaching training. The auditor then asks the participant if work has also been busy for them and asks about a time the participant received positive recognition at work. In the social small talk condition, the auditor replies to the question by describing his previous weekend, which included a cookout at his house where he played lawn games with friends. The auditor then asks the participant to describe the type of activities they enjoy doing with friends and a time during which they engaged in these activities. In both the professional and social small talk conditions, I provide a textbox for the participant to reply to the auditor. After the participant submits their written response, the auditor asks if the participant has time for a few questions and proceeds to inquire about the audit issue. See Appendix A for small talk manipulations.

As mentioned above, the final two cells in the design represent the baseline condition, where there is no small talk conversation prior to the audit inquiry. The

conversation begins the same way with the participant asking the auditor “Hi, Alex. How are you?”. The auditor responds with “Good!” and proceeds to ask if the participant has time for a few audit questions, similar to the professional and social small talk conditions. The no small talk condition provides a benchmark from which to compare the influence of different topics of small talk. In addition, no small talk is a situation that occurs in practice when auditors neglect to invest in building a relationship with the manager or when auditors want to minimize the manager’s time.

3.4 Dependent Variable

The dependent variable of interest is participants’ disclosure of the potential inventory obsolescence issue during audit inquiry. In order to calculate a participant’s disclosure of the potential inventory obsolescence issue to the auditor, one independent coder and the author (both blind to experimental conditions), coded participants written response to the auditor on a five-point scale from -2 (explicitly stated a write-down was not necessary) to +2 (explicitly stated a write-down was necessary).⁷ Thus, a value below 0 indicates the participant disclosed, either explicitly (-2 rating) or implicitly (-1 rating), to the auditor that there is *not* a valuation issue in the current year, a more defensive behavior. For example, one participant responded, “Based on consistency of sales at current ASP, stable inventory, and the unproven market success of any competition, it is premature to mark down the value of the O2 pure air in inventory. This should be revisited in the near future as market demands dictate obtainable ASP for the current device.” This response was coded as a -2 since the participant explicitly mentioned writing down inventory in the current year is not needed. A value above 0 indicates the

⁷ Cohen’s Kappa, used to measure inter-rater reliability (IRR) for willingness to disclose an inventory obsolescence issue, is 0.64, indicating “substantial” agreement (Landis and Koch 1977; Neuendorf 2002).

participant disclosed, either explicitly (+2 rating) or implicitly (+1 rating), to the auditor that there is a valuation issue in the current year, a less defensive behavior. For example, one participant responded, “Since we have not got the response for product as we anticipated at the initiation of the product. We are trying our best to sell the market. However, since a new upgraded product is launched by competitors which is more advanced. We feel that its will be good to take inventory write down this year so that we reach on right valuation.” This response was coded as a +2 since the participant explicitly mentioned writing down inventory in the current year. All coding differences were discussed and resolved between the coders.

CHAPTER 4

RESULTS

4.1 Manipulation Checks

Participants rate how much personal ownership they feel over the oxygen monitor on a scale from 0 (“No Personal Ownership”) to 10 (“Significant Personal Ownership”). Participants in the higher psychological ownership condition rate the extent of personal ownership significantly higher than participants in the lower ownership condition (means = 5.87 and 5.14, respectively; $t_{1,181} = 1.792$, $p = 0.038$).⁸ To assess perceptions of the topic of small talk in the professional and social small talk conditions, I asked participants in the post-experimental questions to indicate how they would characterize the conversation held with the auditor prior to the audit inquiry on an 11-point scale from 0 (“Primarily non-work/non-professional related”) to 10 (“Primarily work/professional-related”). Participants in the professional small talk condition rated the discussion as more professional than participants in the social small talk condition (means = 6.73 and 3.57, respectively; $t_{1,120} = 6.387$, $p < 0.001$). Significant differences between experimental conditions provide support for effective manipulations.

4.2 H1: Psychological Ownership without Small Talk

H1 predicts that managers with higher psychological ownership will react more defensively and be less likely to disclose an inventory obsolescence issue than managers with lower psychological ownership. I perform a simple effect contrast test with psychological ownership in the no small talk conditions. Consistent with expectations (see Table 1 for descriptive statistics and Table 2, Panel B for statistical analysis), I find that managers in the higher psychological ownership condition are less likely to disclose

⁸ Unless otherwise noted, all reported p-values are one-tailed.

an inventory obsolescence issue than managers in the lower ownership condition (means = -0.32 and 0.13; $t_{1,177} = 1.667$, $p = 0.049$). Thus, greater ownership over the audit issue leads to participants being less likely to disclose an issue, supporting H1.

4.3 H2: Professional Small Talk

My second hypothesis predicts that professional small talk will exacerbate managers' defensive behavior. As managers with higher psychological ownership are more likely to perceive the audit request as threatening, I expect them to be more defensive than managers in the lower psychological ownership condition. As such, I predict that professional small talk makes managers even less likely to disclose an inventory obsolescence issue when managers have higher psychological ownership. However, professional small talk will have a minimal effect in the lower psychological ownership condition. Thus, this hypothesis predicts an interaction pattern with contrast weights of (2, 2) for no and professional small talk in the lower psychological ownership conditions and (-1, -3) in the higher psychological ownership conditions.

I use the approach outlined in Guggenmos, Piercey, and Agoglia (2018) to test H2. First, I examine the plot of means for visual fit (see Figure 1). As my means pass the visual fit inspection, I test for significance of the interaction.⁹ The contrast test shows a statistically significant interaction ($t_{1,177} = 3.644$; $p < 0.001$, see Table 2 Panel B). Additionally, I perform the semi-omnibus F-test to check for residual between-cells variance and obtain a non-significant value ($F = 0.010$; $p = 0.990$). Lastly, together, the

⁹ In testing the significance of the interaction, I also assign "0" contrast weights to both levels of psychological ownership for social small talk. This allows me to incorporate the variance from my entire sample into the statistical test providing a more accurate calculation.

pattern explains 99.6 percent of the between-cells variance (i.e., r^2), leaving 0.4 percent of the between-cells variance within those four cells unexplained by this contrast test (i.e., q^2). I follow-up the contrast analysis with simple effects tests between the professional small talk and the no small talk conditions (see Table 2 Panel C). As expected, the difference between the professional small talk and no small talk conditions is not significant when psychological ownership is lower (means = 0.17 and 0.13, respectively; $t_{1,177} = 0.122$, $p = 0.904$, two-tailed). Conversely, in the higher psychological ownership conditions, the difference between the professional small talk and the no small talk conditions is marginally significant (means = -0.71 and -0.32 , respectively; $t_{1,177} = 1.407$, $p = 0.081$). These findings provide support for H2 and suggest that auditors' use of professional small talk prior to audit inquiry should be used with caution as this could lead to more defensive behavior if the manager has higher psychological ownership.

4.4 H3: Social Small Talk

Literature on self-affirmation theory finds that activating an alternate identity will broaden individuals' perspectives and decrease their defensive behavior. However, social small talk will not matter if the audit inquiry itself is not perceived as threatening. As such, I predict that social small talk will make managers more likely to disclose an inventory obsolescence issue when managers have higher psychological ownership. However, social small talk will have a minimal effect in the lower psychological ownership condition. Thus, this hypothesis predicts an interaction pattern with contrast weights of (1, 1) for no and social small talk in the lower psychological ownership conditions and (-2 , 0) in the higher psychological ownership conditions.

In examining visual fit for the pattern of observed means, the higher

psychological ownership/social small talk condition is lower than predicted. As such, the cell means do not pass the visual fit test for my predicted pattern. Thus, my H3 is not supported. In further analysis, in the lower psychological ownership condition, I find that the social small talk condition does not differ significantly from the no small talk condition (means = 0.19 and 0.13, respectively; $t_{1,177} = 0.020$, $p = 0.842$, two tailed), consistent with expectations. However, although social small talk leads to managers being more likely to disclose an inventory obsolescence issue than no small talk in the higher psychological ownership conditions, this difference is not significantly different (means = -0.19 and -0.32, respectively; $t_{1,177} = 0.502$, $p = 0.308$, see Table 2 Panel D), contrary to expectations.

Although not formally predicted but inferred from my stated hypotheses, I expect that, when managers have higher psychological ownership and the auditor uses professional small talk, they will be less likely to disclose an inventory valuation issue than when the auditor uses social small talk. Consistent with this expectation, I find that in the higher psychological ownership conditions the difference between the social and professional small talk conditions is significant (means = -0.19 and -0.71, respectively; $t_{1,177} = 1.906$, $p = 0.029$, untabulated). Thus, while social small talk does not lead to greater disclosure than no small talk, it does mitigate the defensive behavior observed when auditors use professional small talk.

4.5 Social Bonds

As previously discussed, a positive auditor-manager relationship can produce benefits for the audit process, such as receiving audit evidence in a more timely and more usable format (Richard 2006; Guénin-Paracini et al. 2015; Daoust and Malsch 2018). As

such, partners encourage their auditors to engage in small talk to build a positive relationship with the manager. Thus, I also investigate the level of social bonds between the manager and auditor that result from small talk. Table 3 presents results for the measure of social bonds and Figure 2 presents a graphical representation.

In order to capture participants' perceptions of social bonds, I average the responses to the following three questions: "I feel close to Alex (the audit manager)", "I would want to work with Alex (the audit manager) again", and "I have positive feelings towards Alex (the audit manager)".¹⁰ When assessing participants' perception of social bonds, the social small talk condition and the professional small talk condition do not significantly differ (means = 6.07 and 6.13, respectively; $t_{1,180} = 0.190$, $p = 0.849$, two-tailed). However, the no small talk condition is significantly less than the social small talk condition (means = 4.94 and 6.07, respectively; $t_{1,180} = 3.681$, $p < 0.001$, two-tailed) and the professional small talk condition (means = 4.94 and 6.13, respectively; $t_{1,180} = 3.780$, $p < 0.001$, two-tailed). Thus, I find that small talk can help build a positive relationship between the auditor and manager regardless of the topic of small talk.

¹⁰ These questions are based on prior literature examining social bonds between the auditor and manager (Kachelmeier and Van Landuyt 2017). I report my results as the average measure of the three questions. However, statistical inferences are identical if I examine each question individually.

CHAPTER 5

CONCLUSIONS

This study examines the joint effects of managers' psychological ownership and auditor small talk on managers' disclosure of a potential audit issue. Auditing standards require auditors to inquire with knowledgeable sources, and prior literature finds greater association with an item leads individuals to develop psychological ownership over the item (PCAOB AS 1105; Pierce et al. 2001). In an experiment, I find that managers with higher psychological ownership are less likely to disclose a potential audit issue than managers with lower psychological ownership. Further, this effect of psychological ownership is magnified when auditors engage in professional small talk prior to the audit inquiry. As professional small talk is the most common form of small talk among business professionals (Yang 2012), my results suggest that auditors are potentially decreasing audit effectiveness by engaging in professional small talk. Results do not support the hypothesis that auditors' use of social small talk will reduce the effect of psychological ownership, but social small talk does mitigate the defensive behavior caused by professional small talk. In additional analyses, I find that both professional and social small talk improve social bonds with the manager compared to no small talk. Combined, my findings suggest auditors should consider engaging in social small talk, as opposed to professional small talk or no small talk, in order to simultaneously improve social bonds *and* avoid increased defensive behavior caused by professional small talk.

This study is subject to the usual stylized experimental limitations. Auditors perform audit inquiries with both managers whom they have never met due to manager turnover, auditor turnover, promotions, etc. as well as managers with whom they have an

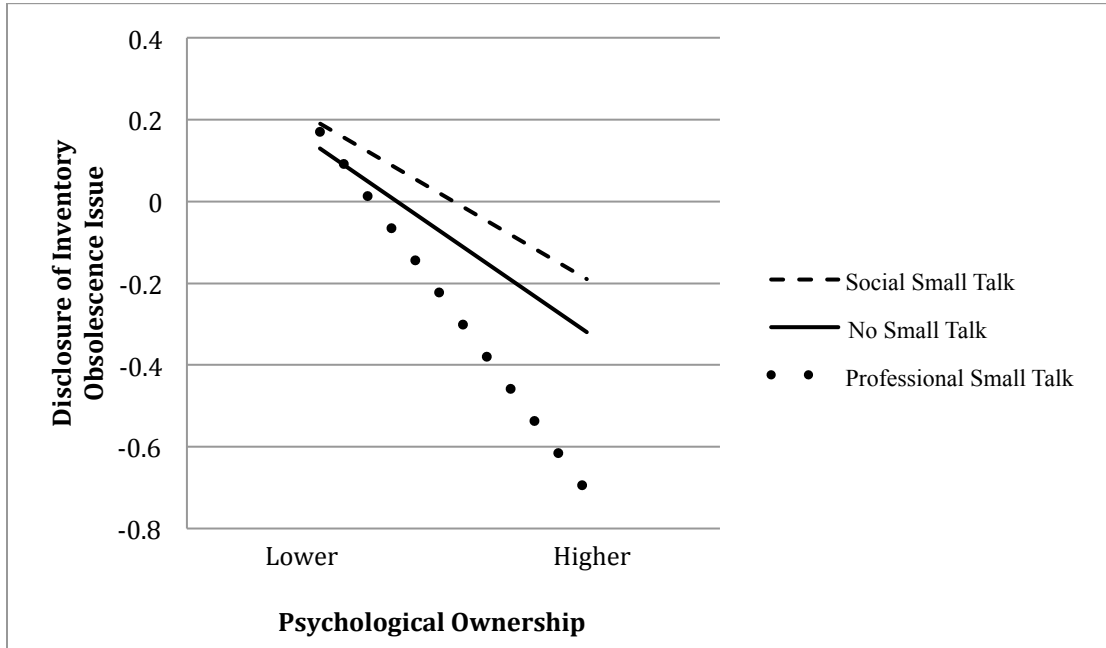
established relationship. In this study, participants were told the auditor has been on the engagement for a couple years but no information was provide about their prior relationship. Future research can examine the effect of small talk during audit inquiry when there is an established relationship between the auditor and manager. In addition, I manipulate small talk through electronic communication, not a live confederate. While I believe this biases me against my predictions, future research can directly examine small talk in face-to-face communications.

My study contributes both to the academic literature and to practice. I contribute to the emerging literature examining the influence of manager effects on accounting behavior by demonstrating how managers' level of psychological ownership influences their disclosure of a potential reporting issue. This effect is important as prior literature shows managers' initial judgments influence audit and financial statement outcomes (Brown and Wright 2008; Hatfield et al. 2010). Additionally, I contribute to the social bonds literature. While most social bonds research examines the effect on auditor behavior, I investigate how social bonds influence managers. I find that the mere presence of a social bond does not make managers acquiesce to auditors, but a change in topic of small talk can lead to differences in evidence collection. This is informative to practitioners as it potentially influences audit effectiveness. Further, I contribute to the broader psychological ownership literature by showing that the valence of the information being disclosed matters. Prior survey evidence finds that individuals with higher psychological ownership are more likely to share positive information related to the target of ownership. I extend this literature by experimentally demonstrating that

higher psychological ownership also causes individuals to be *less* likely to share negative information relating to the target of ownership.

FIGURE 1

Disclosure of Inventory Obsolescence Issue

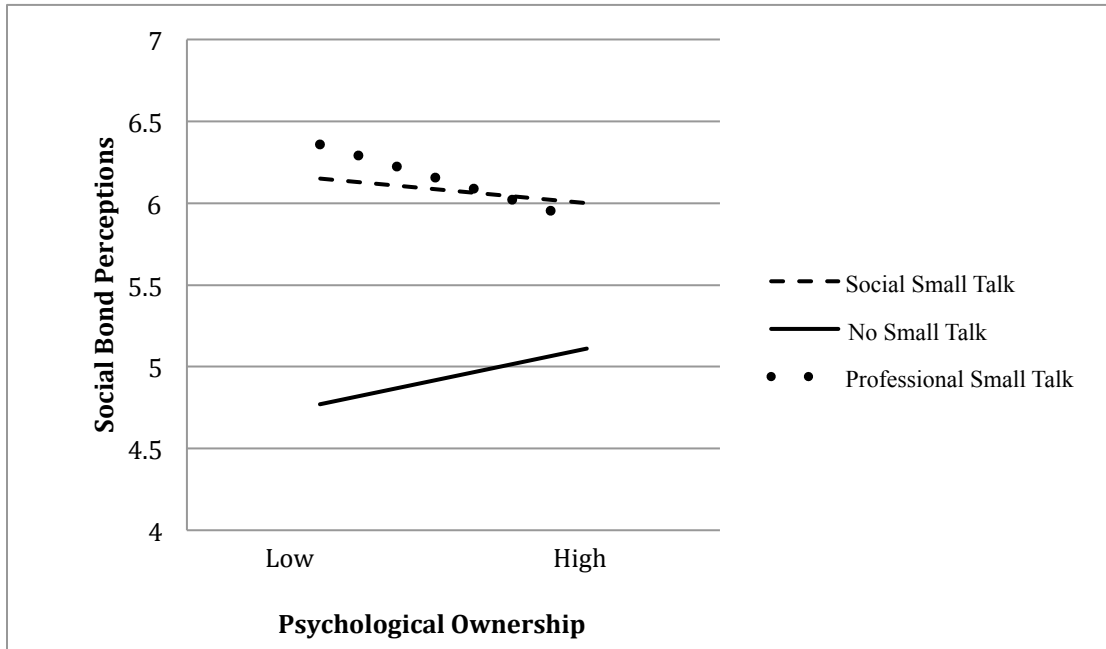


Variable Definition

Disclosure of Inventory Obsolescence Issue: Participants' position on the audit issue disclosed to the auditor during inquiry. The variable was coded on a five-point scale ranging from -2 (participants explicitly stated a write-down was not necessary) to +2 (participants explicitly stated a write-down was necessary).

FIGURE 2

Social Bond Perceptions



Variable Definition

Social Bond Perceptions: Participants' average response to the following three questions: how close they felt to the auditor, whether they want to work with the auditor again, and how positive they felt towards the auditor on an eleven-point scale with endpoints 0 = "Strongly Disagree" and 10 = "Strongly Agree".

TABLE 1

Disclose of Inventory Obsolescence Issue

Descriptive Statistics: Mean (Standard Deviations)

Psychological Ownership	Small Talk			
	None	Professional	Social	Total
Lower	0.13 (1.01) n=30	0.17 (1.21) n=30	0.19 (1.06) n=32	0.16 (1.08) n=92
Higher	-0.32 (1.11) n=31	-0.71 (1.08) n=28	-0.19 (0.93) n=32	-0.40 (1.05) n=91
Total	-0.10 (1.08) n=61	-0.26 (1.22) n=58	0.00 (1.01) n=64	

Variable Definition

Disclosure of Inventory Obsolescence Issue: Participants' position on the audit issue disclosed to the auditor during inquiry. The variable was coded on a five-point scale ranging from -2 (participants explicitly stated a write-down was not necessary) to +2 (participants explicitly stated a write-down was necessary).

TABLE 2
Disclosure of Inventory Obsolescence Issue: ANOVA and Related Tests

Panel A: Results of ANOVA

Source	df	F-Stat	p-value
Psychological Ownership	1	13.034	< 0.001
Small Talk	2	0.966	0.362
Psychological Ownership x Small Talk	2	0.853	0.382
Error	177		

Panel B: Hypotheses Tests

	Test Statistic	p-value
H1: Within No Small Talk: Lower > Higher Psychological Ownership	t = 1.667	0.049 ^a
H2: Psychological Ownership and Professional Small Talk Custom Contrast Interaction	t = 3.644	< 0.001 ^a
Residual Between Cells Variance	F = 0.990	0.538
Contrast Variance Residual	q ² = 0.004	

Panel C: Professional versus No Small Talk

Source	t-stat	p-value
Lower Psychological Ownership	0.122	0.904
Higher Psychological Ownership	1.407	0.081 ^a

Panel D: Social versus No Small Talk

Source	t-stat	p-value
Lower Psychological Ownership	0.020	0.842
Higher Psychological Ownership	0.502	0.308 ^a

^a Directional prediction, p-value is based on one-tailed test.

Variable Definition

Disclosure of Inventory Obsolescence Issue: Participants' position on the issue disclosed to the auditor during inquiry. The variable was coded on a five-point scale ranging from -2 (participants explicitly stated a write-down was not necessary) to +2 (participants explicitly stated a write-down was necessary).

TABLE 3
Social Bond Perceptions

Descriptive Statistics: Mean (Standard Deviations)

Psychological Ownership	Small Talk			
	None	Professional	Social	Total
Lower	4.77 (1.74) n=30	6.36 (1.59) n=30	6.15 (2.01) n=32	5.76 (1.91) n=92
Higher	5.11 (2.00) n=31	5.89 (1.40) n=28	6.00 (1.48) n=32	5.66 (1.69) n=91
Total	4.94 (1.87) n=61	6.13 (1.51) n=58	6.07 (1.75) n=64	

Panel B: Contrast Tests^a

Source	t-stat	p-value
Social = Professional Small Talk	0.190	0.849
Social > No Small Talk	3.681	< 0.001
Professional > No Small Talk	3.780	< 0.001

^aFor each contrast test in Panel B, I assign +1 weight for the first referent condition (collapsed across psychological ownership) and -1 weight for the second referent condition (collapsed across psychological ownership) and 0 weight to the condition not in the comparison.

Variable Definition

Social Bond Perceptions: Participants' average response to the following three questions: how close they felt to the auditor, whether they want to work with the auditor again, and how positive they felt towards the auditor on an eleven-point scale with endpoints 0 = "Strongly Disagree" and 10 = "Strongly Agree".

APPENDIX A
SMALL TALK MANIPULATIONS

EXHIBIT 1

No Small Talk Condition

You: "Hi, Alex. How are you?"

Alex (the auditor): "Good! Do you have time for a few questions?"

EXHIBIT 2

Professional Small Talk Condition

You: “Hi, Alex. How are you?”

Alex (the auditor): “Good, busy as usual! Work has been the typical juggling act with meetings and deadlines. However, I just got a nice surprise in my email. I received an Encore Recognition – it’s a small firm recognition that comes with a gift certificate.”

You: “Oh, congrats! What did you get the recognition for?”

Alex (the auditor): “I taught training this summer. It always feels nice to get positive recognition at work for all the effort we put into our jobs. I guess all the work and craziness is paying off. I enjoy my job so it is all good! I’m sure you can relate. Have things been busy, but going well for you too?”

Please indicate your response to Alex in the box below about your professional life by noting how busy (or not) things are for you and by describing a time you received positive feedback, either formally or informally?”

EXHIBIT 3

Social Small Talk Condition

You: “Hi, Alex. How are you?”

Alex (the auditor): “Good! The weekend went by too fast! A few of my friends were in town visiting this past weekend.”

You: “Oh, nice! What did you do?”

Alex (the auditor): “I had a big cookout at my place. Every time my friends and I see each other we always end up playing Corn Hole, that beanbag toss game. It’s become like a tradition but some of the games get intense. We probably get a little more competitive than necessary, but it’s all in good fun! We’ve been friends for a long time and have some great memories together! I’m sure you can relate. Do you have any go-to games or activities when you get together with your friends?”

Please indicate your response to Alex in the box below by noting activities you enjoy doing with your friends on the weekends and by describing a time when you engaged in one of these activities with your friends.

APPENDIX B
CONSENT FORM

You are being invited to participate in a research study conducted by Nikki MacKenzie and Chris Agoglia at the University of Massachusetts Amherst. In this study, you will be provided information with which to make some judgments. For these judgments, there are no “right” answers – we are simply interested in your professional judgment.

If you agree to take part in this study, you will be asked to complete an online survey. We estimate that this study will take you 20 minutes. In exchange for your good faith effort, you will receive extra credit in your class. Your participation is completely voluntary and you may withdraw at any time. In order to receive extra credit, you must complete the entire study. No partial credit will be given.

If you have any questions concerning your rights as a research participant, you may contact the University of Massachusetts Amherst Human Research Protection Office (HRPO) at (413) 545-3428 or humansubjects@ora.umass.edu. If you have any questions or would like further information, please contact Nikki MacKenzie at nmackenzie@umass.edu or Chris Agoglia at cpa22@isenberg.umass.edu.

We believe there are no known risks associated with this research study. All reported results will be aggregated, so your individual responses will be completely confidential and not stored with any identifying information. We will minimize any risks by deleting all identifying information linked to your responses. The data will be stored in DropBox with access limited to the authors. As with any online study, there is a risk of breach of confidentiality that exists. However, this study does not ask you to provide sensitive personal information.

Although you may not directly benefit in the results of this study, we believe that your participation is potentially informative to corporate managers and their auditors.

By clicking “Next” below you are indicating that you are at least 18 years old, have read and understood this consent form, and agree to participate in this research study. You may print a copy of this for your records.

APPENDIX C
EXPERIMENTAL CASE

EXHIBIT 1

Company Background Screen

Company Background

Assume you are a manager in the medical division at A-Tech Incorporated (referred to as "A-Tech" or "your company"). A-Tech is a technology company that produces products used in the electronics and medical industries and is based in the United States. Your company's stock is listed on the New York Stock Exchange and the company is subject to the normal requirement of obtaining an annual financial statement audit.

Your company is audited by a large auditing firm. The audit manager is Alex Johnson. Alex has been on the audit for 2 years.

EXHIBIT 2

New Product Development Screen

New Product Development

As a high tech company, A-Tech prides itself on developing and producing products with cutting edge technology. You manage the **medical products** division at A-Tech. During new product development, some products require more input from you than others.

Recently, funding in the medical division went toward **a new oxygen monitor**. This product involves state-of-the-art technology for which no industry standard has yet been developed. The oxygen monitor has unparalleled accuracy and high durability casing to perform under the toughest conditions. *The product is in the final design stage. After the design process is complete, the product will be sent to manufacturing for production.*

EXHIBIT 3a

New Product Screen

This screen is present in the lower psychological ownership conditions only.

New Product

You received the following memo regarding the finalized design of the new oxygen monitor.

The memo outlines the options selected (and the rationale) for the remaining design feature decisions.

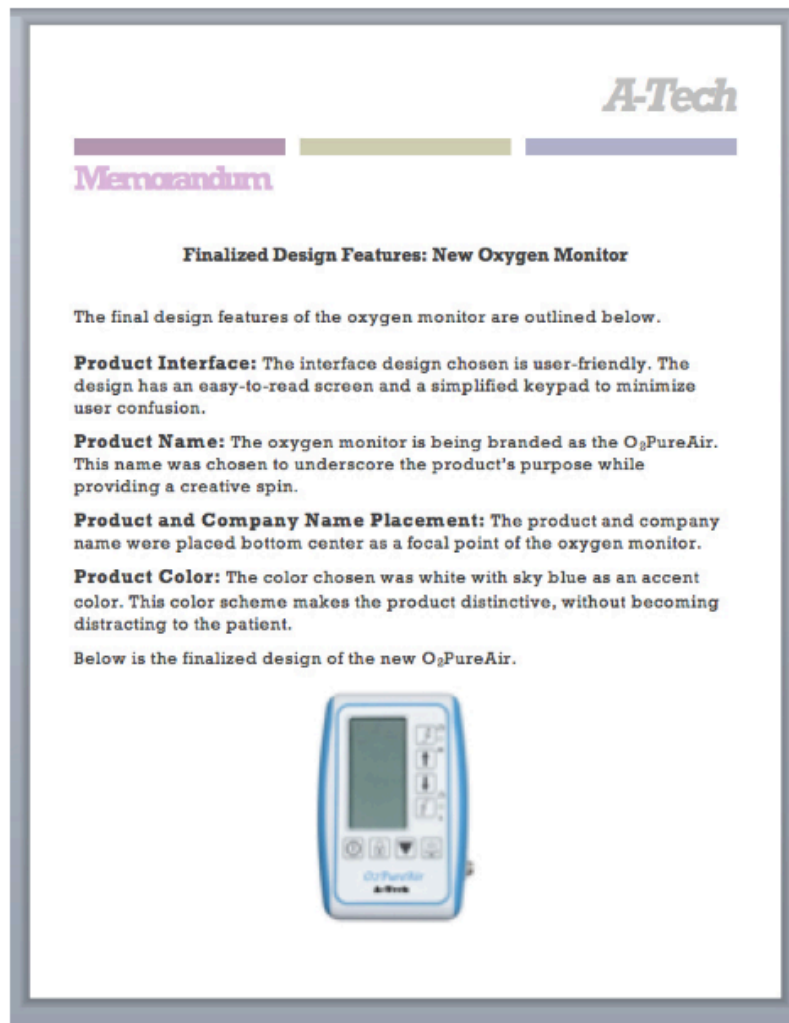


EXHIBIT 3b

New Product Screen

This screen is present in the higher psychological ownership conditions only.

New Product

To finalize the design of the new oxygen monitor, you need to make a few more decisions.

For each design feature presented, select the option *you* want incorporated into the final design of the product.

Product Interface: The interface options are meant to be user-friendly with an easy-to-read screen and a simplified keypad to minimize user confusion.

Screen on Left



Screen on Right



Product Name: The product name options are meant to underscore the product's purpose while providing a creative spin.

AccuAir +



NaturAir



O₂PureAir



Please explain your rationale for **BOTH** the product **interface** and product **name** you chose.

EXHIBIT 3c

Second New Product Screen

This screen is present in the higher psychological ownership conditions only.

New Product (continued)

Below are the final two design features. For each design feature presented, select the option *you* want incorporated into the final design of the product.

Product and Company Name Placement: The product and company name placement options are meant to be a focal point of the oxygen monitor.



Top



Middle



Bottom



EXHIBIT 3d

Second New Product Screen (continued)

This screen is present in the higher psychological ownership conditions only.

Product Color: The color options are meant to make the product distinctive, without becoming distracting to the patient.

Main Color: White
Accent Color: Sky Blue



Main Color: White
Accent Color: Emerald Green



Please explain your rationale for BOTH the product and company **name placement** and product **color** you chose.

EXHIBIT 4a

New Product Finalization Screen

This screen is present in the lower psychological ownership conditions only.

New Product (continued)

This is the finalized design of the new oxygen monitor (as outlined in the memo), which you will need to forward to manufacturing. To submit the oxygen monitor to manufacturing, click the “submit” button below.



EXHIBIT 4b

New Product Finalization Screen

This screen is present in the higher psychological ownership conditions only.

Final Product Design

This is the final product design based on your decisions, which you need to forward to manufacturing. Click the “Revise” button to revisit the design options or click the “Submit” button if you are ready to send the oxygen monitor to manufacturing.



EXHIBIT 5

Personal Ownership Question Screen

Please respond to the following question:

How much personal ownership do you feel over the O₂ PureAir oxygen monitor?

No
Personal
Ownership

Significant
Personal
Ownership

0

1

2

3

4

5

6

7

8

9

10

EXHIBIT 6

Update Screen

Update

It has now been 3 years since the O₂PureAir oxygen monitor went to market. It is February after year-end and the auditors are on site performing testing.

About Last Year's Audit:

During last year's audit, a focus of attention by the auditors was the potential obsolescence of the O₂PureAir as this product represents a significant portion of your company's inventory. In addition, during last year's audit, it was believed that A-Tech's competitor was conducting research leading to a new generation of devices.

While no write-down due to inventory obsolescence was deemed necessary during last year's audit, it is likely the auditors will bring this potential inventory obsolescence issue up again during this year's audit.

Information Relevant to the Current Year's Audit:

A few months ago at a trade show, a sales associate discovered the competition is expected to have their product ready for the market very soon. This product also appears to be technologically superior, potentially making the O₂PureAir obsolete.

To prepare for any potential questions from the auditor for this year's audit, you decide to refamiliarize yourself with the details of the O₂PureAir valuation.

EXHIBIT 7

Product Information Screen

Inventory Information

The following items were discussed internally within the medical products division in the **current year** with respect to the O₂PureAir oxygen monitor valuation.

- The competitor has started taking pre-orders of their product in an attempt to gain market share.
- Initial market research suggests there may be a viable third-world international market for the O₂PureAir.
- The competition's new product will sell at approximately the same price point that the O₂PureAir is currently selling.
- Some of A-Tech's customers have already pre-ordered the competitor's new device.
- Some sources have suggested that the competition may not have done adequate testing of their new product.
- A-Tech has an international marketing team that aggressively markets older technology products in developing nations around the world through existing marketing and distribution channels.

EXHIBIT 8

Second Product Information Screen

Inventory Information (continued)

- Significant pricing changes for the O₂PureAir may be necessary, in which case profitability will be uncertain.
- The size of the international market is debatable, so it may take up to four years to sell off the entire inventory of the O₂PureAir in those markets, and whether conditions will remain stable in those markets for the duration of the four years is uncertain.
- A-Tech may be able to repurpose a portion of the technology in the O₂PureAir to sell in other products.
- The inventory level and ratios for the O₂PureAir have not fluctuated in the last two years, suggesting that sales activity has been consistent.
- It might be possible that the O₂PureAir could continue to serve existing customers' needs until the commercial success and cost competitiveness of the competitor's new technology is established.
- The price point at which the O₂PureAir could be sold in international markets would probably not be enough to cover the product costs.

EXHIBIT 9a

Auditor-Client Interaction Screen

This screen is present in the no small talk conditions only.

Auditor

Alex Johnson, the audit manager, stops by your office.

You: "Hi, Alex. How are you?"

Alex: "Good! Do you have time for a few questions?"

You: "Sure."

Alex: "I started reviewing inventory and have a few questions for you related to the O₂PureAir."

You: "Okay."

Alex: "As we discussed last year, there's the possibility of that new competing product hitting the market, so there might be an inventory obsolescence issue. Can you provide me an update? Is there any new information you've got that can shed some light on the valuation of the O₂PureAir? We'd like to get a complete understanding when assessing the valuation this year."

You: "Sure. I'll send you an email shortly."

Alex: "Thanks for your help!"

EXHIBIT 9b

Auditor-Client Interaction Screen

This screen is present in the professional small talk conditions only.

Auditor

Alex Johnson, the audit manager, stops by your office.

You: "Hi, Alex. How are you?"

Alex: "Good, busy as usual! Work has been the typical juggling act with meetings and deadlines. However, I just got a nice surprise in my email. I received an Encore Recognition – it's a small firm recognition that comes with a gift certificate."

You: "Oh, congrats! What did you get the recognition for?"

Alex: "I taught training this summer. It always feels nice to get positive recognition at work. I guess all the work and craziness is paying off. I enjoy my job so it is all good! I'm sure you can relate. Have things been busy, but going well for you too?"

Please indicate your response to Alex in the box below about **your professional life** by noting how busy (or not) things are for you and by describing a time you received positive feedback, either formally or informally. *(Please write a minimum of 4-5 sentences in order to proceed.)*

EXHIBIT 9c

Second Auditor-Client Interaction Screen

This screen is present in the professional small talk conditions only.

After chatting for a few minutes with Alex about performance recognition at work, Alex asks:

Alex: "Do you have time for a few questions?"

You: "Sure."

Alex: "I started reviewing inventory and have a few questions for you related to the O₂PureAir. "

You: "Okay."

Alex: "As we discussed last year, there's the possibility of that new competing product hitting the market, so there might be an inventory obsolescence issue. Can you provide me an update? Is there any new information you've got that can shed some light on the valuation of the O₂PureAir? We'd like to get a complete understanding when assessing the valuation this year."

You: "Sure. I'll send you an email shortly."

Alex: "Thanks for your help! Great catching up with you. Good luck with everything on your plate."

EXHIBIT 9d

Auditor-Client Interaction Screen

This screen is present in the social small talk conditions only.

Auditor

Alex Johnson, the audit manager, stops by your office.

You: "Hi, Alex. How are you?"

Alex: "Good! The weekend went by too fast! A few of my friends were in town visiting this past weekend."

You: "Oh, nice! What did you do?"

Alex: "I had a big cookout at my place. Every time my friends and I see each other we always end up playing Corn Hole, that beanbag toss game. It's become like a tradition but some of the games get intense. We probably get a little more competitive than necessary, but it's all in good fun! We've been friends for a long time and have some great memories together! I'm sure you can relate. Do you have any go-to games or activities when you get together with your friends?"

Please indicate your response to Alex in the box below by noting activities you enjoy doing with **your friends** on the weekends and by describing a time when you engaged in one of these activities with your friends. *(Please write a minimum of 4-5 sentences in order to proceed.)*

EXHIBIT 9e

Second Auditor-Client Interaction Screen

This screen is present in the social small talk conditions only.

After chatting for a few minutes with Alex about your favorite activities to do with your friends, Alex asks:

Alex: "Do you have time for a few questions?"

You: "Sure."

Alex: "I started reviewing inventory and have a few questions for you related to the O₂PureAir. "

You: "Okay."

Alex: "As we discussed last year, there's the possibility of that new competing product hitting the market, so there might be an inventory obsolescence issue. Can you provide me an update? Is there any new information you've got that can shed some light on the valuation of the O₂PureAir? We'd like to get a complete understanding when assessing the valuation this year."

You: "Sure. I'll send you an email shortly."

Alex: "Thanks for your help! Great catching up with you. I hope you have something fun planned with your friends next weekend."

EXHIBIT 10

Participant Response Screen

Response

Please compose your email response to Alex, the audit manager, with any new information regarding the valuation of the O₂PureAir.

You can also access the information previously provided:

[Product Update](#) [Inventory Information](#)

A large, empty rectangular box with a thin border, intended for the user to compose their email response. The box is currently blank, with a small cursor icon visible in the bottom right corner.

Please review your response carefully. When you are comfortable with the response, please click "Send."

EXHIBIT 11

Additional Measures Screen

Instructions: Please respond to the questions below, which relate to the information on previous screens.

1. How likely do you think it is that sales of the O₂PureAir oxygen monitor will decline?

Not
at all
Likely

Very
Likely

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How likely do you think it is that the O₂PureAir oxygen monitor has an inventory obsolescence issue?

Not
at all
Likely

Very
Likely

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Do you think an inventory obsolescence write-down is necessary for the O₂PureAir oxygen monitor?

Not
at all
Necessary

Very
Necessary

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EXHIBIT 12

Post Experimental Questions Screen - Perspective

Instructions: In your role as the manager of the medical products division at A-Tech, please respond to the questions below, which relate to the information on the previous screens.

1. During this study, I thought about the professional side of who I am.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. During this study, I thought about who I am beyond my professional side.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EXHIBIT 13

Post Experimental Questions Screen – Self-Perceptions

Instructions: In your role as the manager of the medical products division at A-Tech, please respond to the questions below, which relate to the information on the previous screens.

1. To what extent do you feel positive about yourself right now?

Not at all Positive											Very Positive
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. To what extent do you feel disappointed with yourself right now?

Not at all Disappointed											Very Disappointed
0	1	2	3	4	5	6	7	8	9	10	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EXHIBIT 14

Post Experimental Questions Screen - Affect

INSTRUCTIONS: Please respond to the questions below, which relate to the information on previous screens.

Please indicate the extent to which Alex, the audit manager, made you feel:

	Not at all											Very much	
	0	1	2	3	4	5	6	7	8	9	10		
Angry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Frustrated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annoyed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EXHIBIT 15

Post Experimental Questions Screen - Tone

Instructions: Please respond to the question below, which relate to the information on previous screens.

How was the tone of the conversation with Alex, the audit manager?

Informal

Formal

EXHIBIT 16

Post Experimental Questions Screen – Social Bond

Instructions: Please respond to the questions below, which relate to the information on previous screens.

1. I feel close to Alex, the audit manager.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. I would want to work with Alex, the audit manager, again.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. I have positive feelings towards Alex, the audit manager.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EXHIBIT 17

Post Experimental Questions Screen – Conversation

This screen is present in the professional and social small talk conditions only.

Instructions: Please respond to the question below, which relate to the information on previous screens.

Prior to discussing the audit issue, you had a conversation with Alex, the audit manager.

How would you characterize that conversation with Alex?

Primarily
work/
professional
related

Primarily
non-work/
non-
professional
related

EXHIBIT 18

Post Experimental Questions Screen – Demographic Questions

Please answer the following questions about yourself.

1. How many years of business experience do you have?

years

2. How many years of managerial experience do you have?

years

3. What is your professional title? If you are not currently employed, what is the last title you held?

4. What industry do you work in?

5. How familiar are you with oxygen monitors?

Not at all
Familiar

Very
Familiar

0

1

2

3

4

5

6

7

8

9

10

EXHIBIT 19

Post Experimental Questions Screen – Demographic Questions (continued)

6. Have you ever worked in external auditing?

- Yes
- No

7. Have you ever worked in internal audit?

- Yes
- No

8. Your gender:

- Female
- Male
- Other
- Prefer not to answer

9. What is your age?

years

EXHIBIT 20

Post Experimental Questions Screen – Additional Demographic Questions

You are almost done! Please answer the following questions about yourself.

1. Succeeding in my career is important to me.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. I value friendships.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Hanging out with friends is important to me.

Strongly
Disagree

Strongly
Agree

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. How hard do you feel you worked on this study?

I didn't
work
hard
at all

I worked
very
hard

0	1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

EXHIBIT 21

Extra Credit Information Screen

Extra Credit Screen

To ensure you receive extra credit, please provide us with your name and SpireID:

First name:

Last name:

SPIRE ID:

Class(es) in which you are enrolled (you may select more than one):

- Sch-Mgmt 632: Strategic Information Management - Professor Damon Campbell
- Sch-Mgmt 633: Financial and Managerial Accounting - Professor Susan Machuga
- Sch-Mgmt 633: Financial and Managerial Accounting - Professor Pam Trafford
- Sch-Mgmt 650: Business Data Analysis and Statistical Methods - Professor Bernd Schliemann
- Sch-Mgmt 660: Marketing Strategy - Professor Jeff Radighieri
- Sch-Mgmt 689: Organization Strategy - Professor Jeff Gauthier
- Other

This is a hypothetical setting and no way does it reflect your abilities in a real world setting. All scenarios and information is fictitious. Thank you again for participating in our study!

EXHIBIT 22

Thank You Screen

**We thank you for your time spent taking this survey.
Your response has been recorded.**

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