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An Experimental Examination of their Effect on  
Audit Quality**

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# **Social Media Content and Social Comparisons: An Experimental Examination of their Effect on Audit Quality**

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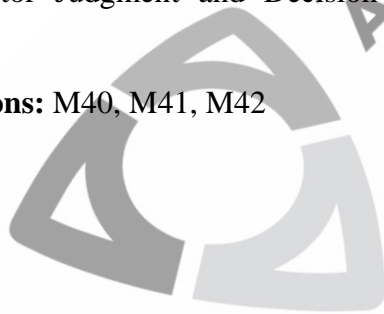
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# **Social Media Content and Social Comparisons: An Experimental Examination of their Effect on Audit Quality**

**SUMMARY:** Recent evidence suggests that auditors access social media platforms habitually throughout the workday. While exploratory research has found concerning effects related to social media usage, existing research has not investigated how viewing social media content might affect auditors. Using an experiment that holds social media usage constant, we examine how social media content impacts auditors' task performance. Relying on social comparison theory, we predict and find that the collection and evaluation of audit evidence (an integral component of audit quality) suffers when auditors view posts of peers' rewarding social experiences compared to those who do not view such content. In a further test of our theory we demonstrate that evidence collection is preserved when auditors view posts made by other accountants in a professional setting alongside posts featuring peers' rewarding social experiences. Given the audit quality consequences of our results, these findings have implications for practitioners, academics, and regulators.

**Keywords:** Auditor Judgment and Decision-Making, Audit Quality, Social Media, Social Comparison

**JEL Classifications:** M40, M41, M42



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## I. INTRODUCTION

As social media use continues to become more pervasive across both personal and professional settings, it has become increasingly important to understand how social media content affects its users' cognition and behavior. Auditors have not escaped the allure of social media, as survey data suggests most auditors are active social media users who access social media platforms multiple times a day (Wolters Kluwer 2015).<sup>1</sup> Moreover, audit firm initiatives to boost staff social media presence for business development and collaborative purposes are increasingly prevalent in the public accounting industry (CAQ 2015; O'Leary 2016; SMT 2017; Deloitte 2018). However, emerging psychology research on social media use has begun to identify negative outcomes associated with the cognitive performance and psychological well-being of its users, such as decreased motivation and reduced mindful attention (Przybylski, Murayama, DeHaan, and Gladwell 2013; Alt 2015; Baker, Krieger, and LeRoy 2016). Although social media use is widespread across the auditing profession, it is unknown whether the consumption of social media content could affect auditor performance, the audit process, and subsequent audit quality.

Social media content could be problematic for auditors because its high visibility has created an environment where posts are often strategically constructed to produce a socially desirable image (Zhao, Grasmuck, and Martin 2008). This phenomenon can lead viewers to feel that they are missing out on the enviable experiences of their peers, which we believe is related to the negative consequences of social media use documented in prior studies. Relying on social comparison theory, we believe that social media content could create an incremental negative impact on users' task performance *beyond* the mere interruption of using social media.

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<sup>1</sup> Additionally, informal discussions with numerous supervisory-level practitioners at large, public accounting firms suggest that auditors' social media usage during the performance of audit tasks is pervasive.

Therefore, we examine whether social media content focused on rewarding, recreational experiences affects auditors' work product in a way that may be detrimental to audit quality. We also examine a potential intervention based on recent professional campaigns to increase the presence of professional work experiences on social media platforms (CAQ 2015). We predict that this content could favorably alter social comparisons in a way that diminishes the potential adverse effects of social media consumption on auditor performance.

Because some of the adverse effects of social media have been shown to inhibit task motivation, we expect social media content featuring peers engaged in rewarding, recreational experiences will negatively affect auditors' evidence collection and evaluation efforts.<sup>2</sup> As a result, auditors' social media consumption practices may threaten overall audit quality, as prior auditing research has consistently shown that evidence gathering has pervasive consequences that cascade through the audit process (Ricchiute 1999; Agoglia, Kida, and Hanno 2003; Bennett and Hatfield 2012; Daoust and Malsch 2018; Bennett and Hatfield 2018).

To explore the effects of social media content consumption on auditor performance, we asked auditors to view a Facebook<sup>TM</sup> feed and then complete an auditing task related to the revenue area of a hypothetical client. We simulated social media content by showing all participants an ostensibly current Facebook feed containing photos with captions posted by other social media users and we manipulated the content our participants viewed between experimental conditions. In the Peer Recreational Experiences (PRE) condition, participants viewed pictures featuring popular local venues populated with people (similar in age to our participants) engaged in recreational, social activities. To isolate the effects of social comparison stimuli in the PRE condition from the mere usage of a social media platform, a Control condition showed pictures

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<sup>2</sup> Research on social comparison suggests peers are those who are relatively similar to the comparer on certain relevant dimensions, such as age (Miller, Turnbull, MacFarland 1988).

from a sightseeing feed that included the same locations from the PRE condition except the photos did not contain people.<sup>3</sup> Finally, we test a potential intervention using a Mixed condition which includes all of the PRE condition posts but adds new posts from public accountants (similar in age to our participants) featuring content about their professional experiences.

Consistent with our expectations, auditors in the PRE condition are less likely to request and evaluate audit evidence (which contained information indicating that a material misstatement may be present) than auditors in the control condition. We also conduct a moderated mediation analysis and find that, compared to the control condition, the peer recreation condition has a negative indirect effect on auditor performance through negative affect, and this effect is dependent on the social comparisons that participants draw against their peers. Additionally, we compared the PRE condition with the Mixed condition and find that auditors in the Mixed condition are significantly more likely to request and evaluate audit evidence than auditors in the PRE condition and that social comparisons, again, moderate the relationship between social media content and auditor performance.

Because our findings indicate that social media content influences auditors' evidence collection and evaluation, we also expected that social media consumption would create a downstream effect on auditors' subsequent audit judgments in our setting. Therefore, we also asked our participants how likely they would be to follow-up with an audit supervisor regarding the results of their findings and to indicate their perception of management's credibility.

Although we anticipated differences in these measures between experimental conditions as a consequence of shifts in evidence evaluation, we do not find support for these expectations for either management credibility or likelihood of following up with an audit supervisor.

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<sup>3</sup> This design choice was utilized to hold locations and geographic priming constant between the PRE and Control conditions.

Interestingly, we do observe some evidence of an indirect effect of social media content on supervisor follow-up through evidence evaluation (but not through perceptions of management credibility). These findings indicate the need for future research before definitive conclusions about the role of social media in auditors' judgment processes can be made.

To the best of our knowledge, our study is the first to examine the implications of auditors' consumption of social media content. While social media is popular with auditors (Wolters Kluwer 2015), our study shows that viewing social media content affects auditors' work beyond the mere interruption arising from the use of social media platforms. We believe these findings are particularly disconcerting due to features germane to the auditing profession, such as long hours and busy season (López and Peters 2011), which likely exacerbate the likelihood of unfavorable social comparisons and, in turn, further threaten audit quality.

Our study also further establishes social comparison theory as an important component of negative performance outcomes associated with social media consumption, and ours is the first study to investigate the causal implications of social comparisons on work performance. The widespread use of social media coupled with the ever-present opportunity for social comparison suggests that our results have implications that are likely to impact other industries and organizations beyond the auditing domain. Finally, informed by social comparison theory, we identify a potential mechanism for mitigating the adverse effects of social media we document in this study. As this literature continues to build, audit firms who are already promoting employee social media engagement (O'Leary 2016; SMT 2017; Deloitte 2018) may wish to evaluate the pros and cons of implementing policies intended to limit professionals' social media access during working hours, or—alternatively—consider encouraging their staff to share more posts about their professional experiences within their peer groups via social media platforms.

Nevertheless, we only test the effects of social media posts featuring the work experiences of other auditors during their busy season (i.e. social comparison targets who are under heavy workloads) and future research is needed to address this limitation by investigating whether more innocuous posts featuring auditors in other contexts produce similar results.

## **II. THEORY AND DEVELOPMENT**

### **Attributes of Social Media**

The popularity of social media continues to grow, allowing users to view a multitude of posts made by other users on a daily basis. Because of the sheer number of users constantly creating new content to be viewed, social media provides a seemingly never-ending supply of stories, photos, and videos that keep users coming back to check their social media feeds throughout the day (Andreassen, Torsheim, Brunborg, and Pallesen 2012; Junco 2012).<sup>4</sup> However, research shows that social media users are likely to post content that exhibits the depth of their social ties (Zhao et al. 2008) and seek to build an online presence that represents their ideal selves, focusing heavily on their most rewarding experiences (Ellison, Heino, and Gibbs 2006). Given the pervasiveness of positively charged social media content primarily featuring peers' rewarding experiences, correlational studies have begun to examine the effects of social media content on users' cognition and behavior.

Early psychology research on social media has identified a number of negative outcomes for its users. Specifically, Przybylski et al. (2013) found a relationship between people's level of social media use and their negative psychological well-being (specifically, negative affect). Social media use is also related to less mindful attention overall (Baker et al. 2016), worse academic performance (Filippou, Cheong, and Cheong 2014), and lowered personal motivation

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<sup>4</sup> Junco (2012) found that Facebook users checked their Facebook feeds an average of six times a day and spent an average of 24 minutes per use.



(Alt 2015). While prior research has found that social media usage is correlated with negative affect and reduced motivation, these studies have not identified the causal mechanism underlying these effects. Accessing social media likely has a negative impact on task performance as a result of mere distraction, but it is also possible that social media content could be adversely affecting users' cognition, changing their overall affective state and motivation. Given this important distinction between the effects of distraction and social media content, we posit that social comparison theory could help explain the results of prior social media research.

### **Social Comparison Theory and Social Media**

Social comparison theory holds that people seek out information about themselves via comparisons with other people (Festinger 1954). These social comparisons tend to arise when people do not have an objective standard against which to judge themselves, inducing them to look to others for benchmark information (Suls and Wheeler 2012). While a given person has many targets from which to choose when making comparisons, people are more likely to compare themselves to individuals whom they perceive to be similar to themselves (i.e. their peers) on certain attributes, such as profession, age, or gender (Festinger 1954; Suls and Wheeler 2012). Therefore, a person is more likely to measure themselves against the attributes of those who they believe share similarities (Kruglanski and Maysel 1990).

While social comparisons can occur in many contexts, social media provides fertile ground for comparisons because it is accessed frequently and the majority of the content is generated by users' immediate peers (Zhao et al. 2008). In fact, a recent study on social network characteristics revealed that there is a strong association between the user's age and the age of that person's friends in a particular social network (Traud, Kelsic, Mucha, and Porter 2011), making it likely that many posts contained in a given user's feed would originate from peers who

make ideal sources of comparison. Unfortunately, social media content presents a problem for accurate social comparisons because the majority of these posts are generated to convey a socially desirable image to others (Zhao et al. 2008). Thus, it is plausible that viewing social media content may cause auditors to compare themselves against unrealistic benchmarks leaving them with the perception that they are missing out on the rewarding experiences enjoyed by their peers, thereby decreasing their motivation to complete audit task work.

One area of audit work that may be particularly susceptible to the adverse effects of social comparison is the motivation to gather and evaluate audit evidence. The inhibition of evidence collection is particularly problematic because prior research shows that inhibited evidence collection can harm the efficacy of supervisory review (Ricchiute 1999; Agoglia et al. 2003; Bennett and Hatfield 2012; Daoust and Malsch 2018; Bennett and Hatfield 2018). For example, Ricchiute 1999 finds that the evidence senior auditors include in their audit documentation ultimately biases partner judgments. Furthermore, Agoglia et al. (2003) found that the evidence staff auditors include in their audit documentation was strongly related to the evidence that reviewers believed was important to an audit decision. Therefore, factors that diminish auditors' collection or evaluation of sufficient appropriate audit evidence are consequential for the audit review process and, ultimately, audit quality.

In summary, social media content generated by peer referents likely presents an opportunity for vivid social comparisons that could induce auditors to perceive that they are not measuring up to their peers, particularly if peer posts feature relatively more rewarding activities. In turn, these unfavorable comparisons may shift auditors' focus away from audit work, reducing motivation to gather and evaluate audit evidence. This leads to our first hypothesis:

**H1: Auditors who view social media content of peers enjoying rewarding experiences will collect and evaluate less audit evidence than auditors who view social media content that does not feature peers enjoying rewarding experience.**

Building on the social comparison framework, it is possible that the presentation of additional social media content focused on something other than rewarding social experiences might serve as an effective intervention that preserves motivation. When social comparisons lead to unfavorable self-assessments on a particular comparison dimension, theory suggests that people will seek other comparison dimensions where they can draw more favorable self-assessments against their peers (Festinger 1954; Wills 1981; Biernat, Eidelman, and Fuegen 2002). Accordingly, we investigate a potential intervention designed to alter auditors' social media based self-assessments by infusing social media content of professional accountants in a work setting alongside content featuring peers who are enjoying rewarding experiences in a non-work setting. When auditors view social media content posted by other professional accountants in a work context (in addition to posts focused on other peers' rewarding activities), we believe auditors will use these professional posts to draw relatively more favorable social comparisons, thereby reducing negative affect and preserving the quality of their audit work.

Specifically, auditors who view content posted by other professional accountants in a work setting (in addition to posts of other peers' recreational activities) should utilize information from their professional peers' posts as an alternative dimension for self-assessment, allowing them to reach more favorable social comparisons. As such, we believe such comparisons will alleviate social media induced declines in auditors' evidence gathering and evaluation because auditors will be more likely to perceive that their current experiences are consistent with those of their professional peer referents. Accordingly, comparisons with other

professional accountants are expected to preserve auditors' motivation to collect and evaluate evidence. This leads to our next hypothesis:

**H2: Auditors who view social media content of peers enjoying rewarding experiences alongside posts from other accountants in a professional context will collect and evaluate more audit evidence than auditors who only view social media content of peers enjoying rewarding experiences.**

The development of our first two hypotheses is premised on social comparison theory, which has found that social comparisons against a benchmark that is relatively "better off" than the viewer can induce increased negative affect (Festinger 1954; Suls and Wheeler 2002; Van den Bos 2009). However, these comparisons are based on the subjective perceptions of the viewer. Therefore, it is possible that the negative affect experienced through social comparison depends on self-assessments drawn from observations of comparison targets (Tajfel and Turner 1986). Related to this, when someone views social media content, their affective reaction likely depends on their self-perceptions after making these social comparisons. If this is the case, social comparisons could predict the strength of the resulting negative affective reaction of social media users, which would lead to other negative outcomes (e.g. reduced task performance).

Thus, the more that auditors' draw unfavorable self-assessments by observing their peers' rewarding activities, the stronger the negative affective reaction they are likely to experience. Because negative affect is linked with a host of negative audit outcomes (Kida, Moreno, and Smith. 2001; Moreno, Kida, Smith 2002; Bhattacharjee and Moreno 2002; Filippou et al. 2014; Alt 2015; Elhai, Dvorak, Levine, and Hall 2017; Wolniewicz, Tiamiyu, Weeks, and Elhai 2018), we expect that increased negative affect will lead to a reduction in auditors' evidence collection and evaluation efforts. That is, we expect that, compared to auditors who do not view social media content featuring peers rewarding experiences, those who do will be more likely to experience negative affect when they draw unfavorable social comparisons. Increased negative

affect, in turn, will reduce evidence collection and evaluation. We present this prediction

formally as our third hypothesis:

**H3: Compared to auditors who do not view social media content of peers enjoying rewarding experiences, auditors who view such content will be more likely to experience negative affect when they draw unfavorable social comparisons with their peers, and this increase in negative affect will decrease the likelihood of requesting and evaluating audit evidence.**

However, if auditors view alternative comparison information from professional peer referent targets (i.e. other professional accountants) alongside content oriented toward rewarding experiences in a non-work setting, it could change the nature of their self-assessments (Festinger 1954; Tajfel and Turner 1986; Biernat et al. 2002). Specifically, social comparison theory predicts that when people make social comparisons, they often do so along multiple dimensions for self-assessment purposes (Wills 1981; Suls and Wheeler 2002). Thus, auditors may utilize the information provided by the presence of social media content featuring other, working, professional accountants over social media content focused on socially rewarding experiences for self-assessment purposes. This shift should mitigate the negative affect caused by viewing social media content featuring peers engaged in rewarding experiences if auditors who view other professional accountants reach a favorable self-assessment about their own workload demands or professional obligations compared to their peers. Therefore, we posit that the presence of content posted by professional accountants in a work setting will allow auditors to form more favorable self-assessments based on their social comparisons, reducing negative affect and increasing evidence collection and evaluation. This leads to our final hypothesis:

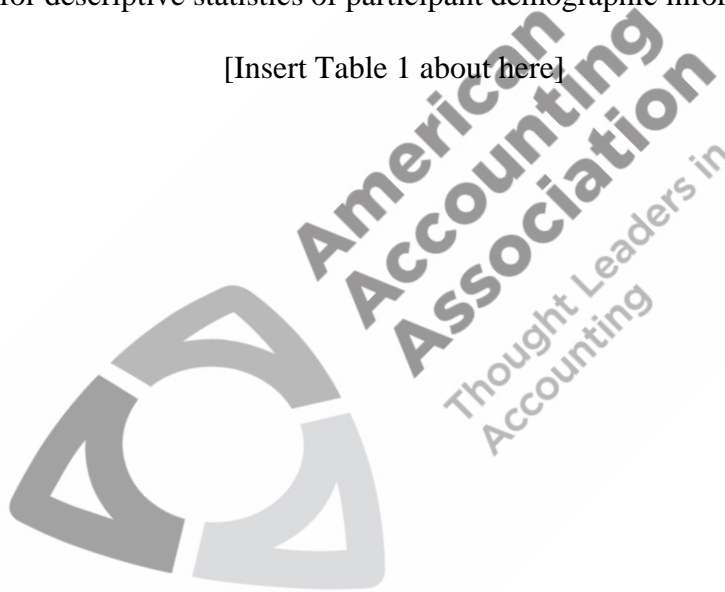
**H4: Compared to auditors who only view social media content of peers enjoying rewarding experiences, auditors who view such content alongside content of accountant peers in a professional context will be less likely to experience negative affect when they draw favorable social comparisons with their peers, and this reduction in negative affect will increase the likelihood of requesting and evaluating audit evidence.**

### III. METHODOLOGY

#### Participants and Experimental Design

Fifty-six auditors from four large, international accounting firms in the Boston, MA region completed the experimental materials distributed via Qualtrics. On average, participants were 24.53 years old with 2.00 years of audit experience. Fifty-five percent of our participants identified as male. Thirty-three of the auditors were staff, nineteen were seniors, one was a manager, one was a senior manager, and one was a partner, while one participant did not report rank (see Table 1 for descriptive statistics of participant demographic information).<sup>5</sup>

[Insert Table 1 about here]



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<sup>5</sup> We obtained approval from the Institutional Review Board at the institution where the study was conducted. We collected data from 59 participants. Three participants were removed from our analysis because their mean completion time exceeded the third quartile by 1.5 times the interquartile range. Inclusion of these participants does not qualitatively change our results or inferences drawn. Participants were asked to report their industry expertise: nineteen were in financial services, twelve were in commercial services, eight were in biotechnology, six were in energy, and eleven did not respond. Inclusion of demographic variables as covariates in our analysis does not change inferences drawn. Participants either received a \$30 Amazon gift card in exchange for their participation or were obtained through the support of a firm grant. Controlling for these two groups in our analyses does not change inferences drawn. Finally, two participants in the PRE condition were a partner and senior manager. Excluding these two participants from our analysis does not change inferences drawn.

We employ a 1x3 between-participants experimental design whereby participants were randomly assigned to one of three Facebook feed conditions (Peer Recreational Experiences [PRE], Control, or Mixed) and asked to assume they were viewing social media during a workday break.<sup>6</sup> Participants in the PRE condition viewed a social media feed featuring similarly aged adults engaging in rewarding recreational experiences in non-work settings (e.g. relaxing with friends at a bar or restaurant or attending a social event).<sup>7</sup> To strengthen our manipulation, our Facebook posts were set in popular locations around Boston that would be easily recognizable to our participant pool (e.g., sports stadiums, local bars, popular restaurants). Each picture was accompanied by a caption of text that generally described what the people in the picture were doing.<sup>8</sup> In the Control condition, we asked participants to imagine that they were viewing a Facebook feed focused on informational posts about Boston sightseeing. To control for unintended priming effects related to the inclusion of Boston locations in the PRE condition, the Control condition included pictures of the same locations featured in the PRE condition, but without the presence of peer referents. Additionally, captions from social media users referred to the location by name, keeping geographic and setting information constant across conditions.<sup>9</sup> Finally, the Mixed condition featured all of the same posts from the PRE condition mixed with new posts made by similarly aged professional accountant peers engaged in work related activities at the participant's hypothetical accounting firm. Specifically, interspersed throughout the pictures of peers engaged in non-work activities, the Mixed condition social media feed also featured pictures of audit firm peers discussing their current professional experiences at work,

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<sup>6</sup> Discussions with multiple managers from large accounting firms indicates that accounting professionals often access social media platforms multiple times throughout the day. This supports the notion that our operationalization of social media use resembles how auditors actually access and interact with social media in practice.

<sup>7</sup> Because we could not realistically use auditors' actual personal social media accounts for the study, all social media contacts were unknown to the participants.

<sup>8</sup> Captions accompanying the photos were generated by undergraduate students at a private northeastern college.

<sup>9</sup> PRE and Control condition participants each viewed four pictures on this screen.

including pictures and descriptions of auditors and their teams around the office or engaged in professional work activities.<sup>10</sup> Appendix A contains examples of the pictures and related captions contained in each of the social media feed conditions.

To further reinforce each manipulation, the Facebook feed was displayed to participants on a subsequent screen as they completed the audit task (described in more detail later).

Specifically, participants saw an ostensibly live Facebook feed consistent with their assigned condition while they reviewed audit case materials.<sup>11</sup> All content in each condition was timed to appear within one minute, with each new post appearing for the participant to see, but also allowing continuous access to all posted content in a timeline format (as it would appear normally on this social media platform) as they completed the audit task.<sup>12</sup>

### **Experimental Materials**

Participants assumed the role of an auditor at a large, international accounting firm. All participants were asked to assume that they had been assigned to the audit engagement for a client in the hotel industry and were instructed to perform analytical procedures related to revenue including a material increase in their client's unaudited revenue over the prior year's audited balance. The case study utilized in this experiment was adapted from training materials developed by a Big 4 accounting firm. Before beginning the task, participants viewed the

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<sup>10</sup> To ensure a proper comparison between the PRE and Mixed condition, the Mixed condition contains all of the content posted in the PRE condition and adds three additional posts related to work experiences on this screen.

<sup>11</sup> On the audit task screen, four additional posts for the PRE and Control conditions appear and seven appear for the Mixed condition (which includes the four from the PRE condition).

<sup>12</sup> An alternative explanation for our findings is that participants are more distracted by the additional social media posts in the Mixed condition compared to the PRE condition, making it less costly for them to collect more audit evidence. To address this concern, we collected data from 25 graduate accounting student participants to measure how distracted they were by the two different conditions while working on a cognitively demanding task. We did not find any significant differences between the two conditions in terms of participants' perceptions of how much time they spent on the task (or the actual time spent), how distracting the social media content was, or how much time they spent on the task relative to looking at the social media feed. We believe these results provide convincing evidence that differences in the number of posts between the Mixed and PRE conditions are unlikely to have influenced our results.



Facebook feed associated with their respective condition. After viewing the initial social media feed (previously described), participants received an explanation from the client for the increase in unaudited revenue. The client's explanation contained several plausible reasons for the increase in revenue including increased room rental rates, higher occupancy rates attributed to more extensive marketing efforts, favorable weather, and new conference bookings at their properties. The client also indicated that these improvements generated enough revenue to overcome setbacks at some of the properties. Client management also provided documentation claimed to be supportive of the explanations provided. After reading the client's explanation, participants were instructed to assess the increase in unaudited revenue by utilizing the documentation provided by the client and by requesting additional corroborating evidence. Participants were presented with a screen containing a module which allowed them to both view the documentation already obtained and request additional audit evidence items from the client. Specifically, participants could request additional evidence from the client, but, consistent with audit practice, each item request took time to be fulfilled (a timer counting down fifteen seconds displayed on the screen after each request before the item could be reviewed by the participant). As described previously, additional social media content was displayed on the screen adjacent to the audit evidence module.

In the audit evidence module, participants had immediate access to the two client prepared reports that management claimed to support their explanation: a hotel industry report and a proposal presented by the client's marketing department advocating room rental rate increases. However, while these reports did not contradict management's statements, the information they contained was ambiguous and did not adequately support management's claims. Therefore, it was necessary for auditors to gather additional audit evidence. To this end,

the auditors were given the opportunity to collect up to six pieces of additional audit evidence from the client (which could be selected by the auditor in any order).<sup>13</sup> The audit information items each contained unique discrepancies that contradicted different aspects of the client's explanation for the revenue increase. Appendix C outlines the inconsistencies contained within each audit evidence item.<sup>14</sup>

Our dependent variable is the number of audit evidence items participants collected from the client and subsequently accessed for review. Each evidence item provided unique information about various elements of the client's claims and the recorded revenue balance, making each piece of evidence uniquely useful for determining whether the client's position was supported. All participants had the option of collecting and viewing up to six audit evidence items from the client. Therefore, the dependent variable is zero if the auditor did not evaluate any requestable audit evidence and six if all items were requested and evaluated. We refer to this variable as 'evidence requested and evaluated' or 'evidence reviewed' (for brevity) when discussing our results.<sup>15</sup> We also measure auditors' perceptions of management credibility and their likelihood of following up with their supervisor.

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<sup>13</sup> These items included a conference booking report, flood damage memorandum, and four different occupancy reports that listed average room rental rates, occupancy, and prior year comparison information (see Appendix B for a description of each audit evidence item available to participants). After the evidence item was obtained, participants had to access the file by clicking on a button to view it.

<sup>14</sup> We also asked three auditors with an average of eight years of audit experience to review the case materials. Each auditor received a copy of the audit task and a request to assess the usefulness of each evidence item included. We then utilized semi-structured questions to discuss the materials with each auditor after they had finished independently reviewing the case material. We asked the following three questions followed by a request for explanation: 1) Do you think it would be helpful to the audit to have all of the evidence items for review? 2) Do you think there is any redundancy in the evidence items that would make any of them unimportant to the audit? 3) Do you think there are any significant differences in the importance of the individual evidence items in assessing client's claims about revenue? All three auditors unanimously found all requestable evidence items to be helpful and uniquely important to completing the assigned audit task and noted no significant differences in diagnostic value between the evidence items

<sup>15</sup> Prior research examining audit evidence requests generally display evidence items to the auditor after the request has been made (see Bennett and Hatfield 2013). In our task, we measured whether participants requested evidence separately from whether they subsequently accessed it for evaluation. Replacing our dependent variable with

## IV. RESULTS

### Manipulation Checks

To verify that participants attended to our experimental manipulations, we asked the auditors to indicate their agreement with two statements about the pictures they viewed in their social media feed. First, we asked if they viewed pictures of people having fun (0 = Strongly Disagree, 8 = Strongly Agree). Consistent with our expectations, participants in the PRE condition indicated higher agreement with the statement (mean = 7.06) than participants in the Control condition (mean = 5.90) ( $t_{53} = 2.30, p = 0.013$ ).<sup>16</sup> Second, we asked if they viewed pictures of people working (0 = Strongly Disagree, 8 = Strongly Agree). Participants in the Mixed condition indicated higher agreement with the statement (mean = 3.94) than participants in the PRE condition (mean = 1.50) ( $t_{53} = 4.37, p < 0.001$ ). Accordingly, participants attended to the manipulations and correctly identified the events they viewed in their respective conditions.

### Hypothesis 1

Hypothesis 1 predicts that auditors in the PRE condition will request and evaluate less audit evidence than auditors in the Control condition. To test H1, we examine the number of audit evidence items requested and accessed by the auditor (evidence reviewed) between experimental conditions. Table 2 Panel A presents means and standard deviations for variables included in our analyses, and Panel B shows planned comparisons of treatment conditions. Figure 1 presents mean plots of the number of information items reviewed by condition. Consistent with our expectations, evidence reviewed was significantly lower in the PRE condition (mean = 2.17) than the Control condition (mean = 3.71) ( $t_{53} = 2.36, p = 0.011$ ), and this

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evidence requested (but not necessarily evaluated) in our test of hypotheses yields similar results with the exception of H4, which becomes marginally significant.

<sup>16</sup> All  $p$ 's one-tailed unless stated otherwise.

comparison yielded a Cohen's  $D$  of 0.74 (a medium effect size). Thus, these results support H1.<sup>17</sup>

[Insert Table 2 about here]

[Insert Figure 1 about here]

## Hypothesis 2

Hypothesis 2 predicts that auditors in the Mixed condition will request and evaluate more audit evidence than auditors in the PRE condition. Consistent with our expectations, evidence reviewed was significantly higher in the Mixed condition (mean = 3.59) than the PRE condition (mean = 2.17) ( $t_{53} = 2.06, p = 0.022$ ) and this comparison yields a Cohen's  $D$  of 0.67 (a medium effect size). This result supports H2 and suggests that viewing posts featuring professional peers engaged in work activities helps mitigate the effects of viewing content featuring rewarding experiences.

## Hypotheses 3 and 4: Moderated Mediation Model of Social Comparison

To better understand how auditors were affected by the social media content they viewed, we asked participants to compare their own experiences with those of their peers using questions adapted from prior social comparison research (Wills 1981; Suls and Wheeler 2012; Przybylski et al. 2013): "I feel that others are having more rewarding experiences than I am" and "I feel that I do not get out to socialize as frequently as my peers" (both questions anchored on 0 = Strongly Disagree and 8 = Strongly Agree). These questions explicitly ask participants to compare

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<sup>17</sup> Our experimental control condition included social media content featuring all of the same locations utilized in the PRE condition, but without the presence of people. To understand how auditors would perform if they were assigned the same audit task and case materials with no social media consumption, we collected additional data to establish a no-social media condition ( $n = 21$  auditors; we excluded one participant who did not meet our screening criteria, but including this auditor does not change inferences drawn). In evaluating our findings, we first compare the number of evidence items requested and evaluated in the no-social media condition (mean = 3.75, standard deviation = 2.17, untabulated) to our original control condition and find no significant differences ( $t_{39} = -0.56, p = 0.956$ , two-tailed) between groups. We then compare the no-social media condition to the PRE condition and find that the number of evidence items requested and evaluated are significantly less in the PRE condition than in the no-social media condition ( $t_{36} = -2.42, p = 0.010$ , one-tailed), consistent with the comparison between the original control condition and the PRE condition. These findings indicate that auditors in our experimental control condition behaved similarly to auditors who completed an identical auditing task devoid of any social media influence.

themselves against peers, making them ideal for testing social comparison theory. We extract a variable, *Peer Reward Comparisons*, from these two measures. Additionally, we measure participants' affective reactions using an adapted version of the Emmons Mood Indicator scale (Diener and Emmons 1984).<sup>18</sup> We extract one factor from these three measures which we refer to hereafter as negative affect.<sup>19</sup>

Hypothesis 3 predicts that, compared to the Control condition, auditors in the PRE condition will be more likely to experience negative affect when they draw unfavorable social comparisons which, in turn, will lead to decreased evidence collection and evaluation. To test Hypothesis 3, we conduct a multi-categorical moderated mediation model, as outlined by Hayes and Preacher (2014), which includes all three treatment condition cells within the same model using relative dummy coding. We utilize sequential coding to test the relative effects of our conditions, which changes the reference group of each dummy coded variable. Our first dummy coded variable is the relative effect of someone who views social media content of people enjoying rewarding experiences in a non-work setting compared to those who do not (hereafter Control-PRE), where the control group is the reference group. Our second dummy coded

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<sup>18</sup> We focus on the items contained in the Mood indicator scale that have been identified by prior literature to relate directly to social media use. Specifically, since viewing social media content is associated with feelings of sadness and depression (Baker et al. 2016 and Pryzbylski et al. 2013), we utilized the three items from the scale directly related to these specific negative feelings: sad, gloomy, and depressed. The other negative affect items contained in the Mood Indicator scale measure participant's affective state related to anger and frustration. While it is possible that some social media content evokes these feelings, prior research has not identified a relationship between social media consumption related to rewarding experiences and these negative feelings.

<sup>19</sup> Following Bollen and Lennox (1991), we utilize dimension reduction methods that fit whether the measured variables are causing or being caused by a latent factor. Specifically, Principal Component Analysis (PCA) is recommended when measured variables uniquely contribute to a latent variable whereas factor analysis (Principal Axis Factoring [PAF]) should be utilized when measured variables reflect shared variance arising from a latent variable. Therefore, we use PCA for Peer Reward Comparisons and PAF for Negative Affect. Each factor analysis loads on only one factor in separate analyses. Additionally, the two variables included in the peer rewarding experiences factor account for 68.04% of the variance with an Eigenvalue of 1.36, while the three variables included in the negative affect variable account for 91.31% of the variance with an Eigenvalue of 2.74. Changing the dimension reduction method for either variable does not qualitatively change our results of our findings for either Hypotheses 3 or 4.

variable is the relative effect of someone who views social media content of people enjoying rewarding experiences and professional accountants in work settings compared to those who only view content of people enjoying rewarding experiences (hereafter PRE-Mixed), changing the reference group to the PRE condition. We utilize boot-strapped estimates of confidence intervals to test the individual paths and the relative indirect and direct effects of the variables of our models using the PROCESS macro model 7 (Hayes 2018). See Figure 2 for a representation of the model used to test Hypothesis 3.

[Insert Figure 2 about here]

Consistent with Hypothesis 3, we find that the PRE condition is more likely to cause negative affect compared to the control condition when the participant perceives that their peers are experiencing more rewarding activities than themselves, and this increased negative affect decreases evidence reviewed, consistent with our predictions (95% of bootstrapped estimates of the relative indirect effect  $< -0.044$ ).<sup>20</sup> We also examine the individual paths and test their significance. First, we find that the relationship between Control-PRE and negative affect is moderated by participant's self-comparisons with their peers' social experiences ( $t = 2.36, p = 0.011$ ). This shows that negative affect caused by viewing social media content of people enjoying rewarding experiences depends on the social comparison drawn by the participant. We also find a significant negative relationship between negative affect and evidence reviewed ( $t = -2.22, p = 0.016$ ). Taken together, these results support Hypothesis 3.<sup>21, 22</sup>

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<sup>20</sup> All models were tested in PROCESS using 10,000 iteration bootstrap samples.

<sup>21</sup> We also test the model's relative direct effect of Control-PRE on the dependent variable and find evidence of a marginal relative direct effect ( $t = -1.85, p = 0.071$ , two-tailed).

<sup>22</sup> We measured two additional variables to identify and control for a baseline related to each participant's social experiences exclusive of their social comparisons: one related to participants' satisfaction with their social experiences and one related to their perceptions of being socially excluded. Controlling for these variables in our model does not change any of our inferences, lending further support for the effects of social comparison in interpreting our findings.

Next, we investigate Hypothesis 4 to determine how comparisons change when auditors view social media content of people enjoying rewarding experiences in a non-work setting alongside content of other professional accountants in a work setting. When auditors draw unfavorable social comparisons with their peers on one dimension (i.e. rewarding social experiences), we predict that they will attempt to make comparisons across different social comparison dimensions—when possible—to reach more favorable self-assessments (Festinger 1954; Wills 1981). Therefore, in addition to measuring participants' perceptions of peers' rewarding experiences, we also asked them to indicate their agreement with the statement: "I believe that I work more than my peers" (anchored on 0 = Strongly Disagree and 8 = Strongly Agree). To test Hypothesis 4, we include this variable, *Peer Work Comparisons*, as the moderating variable in the mediation model discussed previously (see Figure 3). Similar to Hypothesis 3, we test a multi-categorical moderated mediation model which includes all of the same variables as before but changes the moderating comparison variable to *Peer Work Comparisons*.

[Insert Figure 3 about here]

Using *Peer Work Comparisons* as the moderator, we find a significant relative indirect effect of PRE-Mixed on evidence reviewed through negative affect (95% of bootstrapped estimates < -0.001). This indicates that the Mixed condition is less likely to induce negative affect compared to the PRE condition when the participant perceives less disparity in their workload compared to that of their peers, and this reduced negative affect increases evidence review, consistent with our predictions. We also test the significance of the individual paths of the indirect effect. First, we find that the relationship between PRE-Mixed and negative affect is moderated by *Peer Work Comparisons* ( $t = 1.91, p = 0.031$ ). This provides additional evidence

that the negative affect that arises as a result of viewing social media content depends on the social comparisons drawn by the participant. We also find a significant negative relationship between negative affect and evidence reviewed ( $t = -2.22, p = 0.016$ ). The results support Hypothesis 4.<sup>23, 24</sup>

## V. SUPPLEMENTAL ANALYSES

### Auditor Judgments

The collection and evaluation of audit evidence is important because it can influence how auditors form perceptions of the client and may also shape auditors' planned response to audit issues. Moreover, auditing standards emphasize the importance of auditor judgment as a result of gathering and evaluating audit evidence (PCAOB 2010). Although our theoretical development outlined how prior research has found links between social media usage and task motivation (e.g. our measure of evidence gathering and evaluation), there is a paucity of research related to the potential impact of social media on auditors' perceptions or subsequent judgment processes. However, it is reasonable to assume that changes in the amount of evidence that an auditor evaluates may have a downstream effect on the auditor's subsequent audit judgments (especially when that evidence is inconsistent with management's claims). Therefore, we explore whether the effects of social media content that change auditors' evidence collection and evaluation ultimately affect their subsequent audit judgments in our experimental setting. We collected two measures of auditor judgment that were applicable in our study: auditor perceptions of

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<sup>23</sup> We also test the model's relative direct effect of PRE-Mixed on the dependent variable and find evidence of a marginal relative direct effect ( $t = 1.96, p = 0.056$ , two-tailed).

<sup>24</sup> We measured participants' job satisfaction and included it as a covariate in the model. Controlling for job satisfaction does not change any of our inferences. Additionally, our model for Hypothesis 3 did not provide evidence of a relative indirect effect of PRE-Mixed on evidence reviewed using *Peer Reward Comparisons* as the moderator. This suggests that the auditors in our study made comparisons along more than one social comparison dimension which is consistent with prior social comparison research (Wills 1981).



management's credibility (Management Credibility) and the likelihood of following up with their audit supervisor regarding their audit findings (Follow Up).<sup>25</sup>

Because we expected auditors in the PRE condition to be less likely to collect and evaluate evidence (compared to those in the Control and Mixed conditions), we believed auditors in the PRE condition would assess management as more credible and be less likely to follow-up with their supervisor. However, we did not find evidence that this was the case.<sup>26</sup> Because of this, we follow the advice of Shrout and Bolger (2002) who recommend the use of mediation models to test distal processes in the event of smaller effect sizes that may be present in higher order effects caused by an independent variable. That is, in our case we would expect that the social media condition would first affect evidence review, followed by Management Credibility and, finally, Follow Up.

Accordingly, we tested the indirect effects of Control-PRE and PRE-Mixed using relative dummy coding. Figure 4 depicts our model which we test using PROCESS (Hayes 2018).

[Insert Figure 4 about here]

A test of the model reveals support for an indirect effect of social media content on auditors' planned supervisor follow-up through evidence reviewed. Specifically, an indirect test

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<sup>25</sup> We collected two measures related to management credibility, the reliability of management's explanation (How reliable was the client's explanation of this year's revenue increase?), anchored on 0, Not at all reliable, and 8, Very reliable, and the sufficiency of the management's explanation (How sufficient was the client's explanation of this year's revenue increase?), anchored on 0, Not at all sufficient, and 8, Very sufficient. Using these two variables, we employ Principal Component Analysis to isolate a measure of our participants' assessment of management's explanation. Our factor analysis loads on only one factor, accounting for 89.26% of the variance with an Eigenvalue of 1.76. Participants also indicated their intentions to follow-up with their manager about the client's explanation of the revenue increase (0, Not at all likely and 8, Very likely).

<sup>26</sup> The means (standard deviations) associated with these variables are as follows for the Control condition, the PRE condition, and the Mixed condition, respectively: For Management Credibility, -0.129 (1.01), -0.248 (1.11), 0.422 (0.74), and for Follow Up, 6.48 (1.47), 6.67 (1.53), 6.06 (1.64). A one-way analysis of variance indicated that there were no significant differences in either variable between treatment conditions (all  $p$ 's > 0.10). Pairwise comparisons yielded only one significant ( $p < 0.05$ ) bivariate relationship indicating that auditor assessments of management credibility were lower in the PRE condition than in the Mixed condition. However, the inclusion of auditor experience as a covariate renders this contrast insignificant, suggesting this bivariate difference is more attributable to auditor demographic characteristics than social media content.

of Control-PRE on Follow Up through evidence reviewed shows that relative to the Control condition, the PRE condition has a negative effect on auditors' evidence review, resulting in a subsequent decrease in the likelihood of Follow Up (95% of bootstrapped estimates of the relative indirect effect  $< -0.061$ ). On the other hand, the indirect test of PRE-Mixed on Follow Up shows that relative to the PRE condition, the Mixed condition has a positive effect on auditors' evidence review, leading to an increase in Follow Up (95% of bootstrapped estimates of the relative indirect effect  $> 0.021$ ). However, we do not find evidence of an indirect effect for either of the relative effects of social media content on Follow Up through evidence reviewed and Management Credibility (as evidenced by 95% confidence intervals that contained zero), although we had anticipated that this would be the case.<sup>27</sup>

Therefore, while there is some evidence of the predicted downstream effects of social media content on auditors' subsequent audit judgment, other anticipated relationships between social media content and judgment are not supported empirically. While we can only surmise, it is possible that auditors in the PRE condition may be defaulting to a conservatism bias (Kida 1984), whereby PRE condition participants may recognize that they have not executed enough task effort and adjust their stated perceptions to be more conservative in terms of their assessment of client credibility and their likelihood of following up. Alternatively, our measures of auditor judgment may not have been well matched to the decision making task utilized in our study. We believe these findings provide opportunities for future research, but also indicate the need for caution in interpreting our results as they relate to specific outcomes for auditor judgments.

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<sup>27</sup> Controlling for auditor demographics in the model does not qualitatively change any inferences drawn from this analysis.

### **Alternative Dependent Variable Specification**

Our dependent variable (evidence reviewed) represents the number of audit evidence items that auditors both requested from the client and subsequently evaluated. Recall, however, that the client also made two pieces of evidence immediately available to the auditor for evaluation. These items were intended to be ambiguous in nature necessitating the need to gather and evaluate additional pieces of audit evidence. However, we measured auditors' use of these two immediately available items and calculated the total number of evidence items participants accessed during the audit task (i.e. both requested and immediately available). In untabulated analyses, we replace our dependent variable (evidence reviewed) with this total measure of evidence accessed (requested and immediately available) and find no differences in our results. Specifically, participants evaluated significantly fewer pieces of audit information in the PRE condition (mean = 3.83) than the Control condition (mean = 5.62) ( $t_{53} = 2.50, p = 0.008$ ), consistent with the predicted effect of H1. Additionally, auditors in the Mixed condition evaluated more evidence items (mean = 5.35) than auditors in the PRE condition (mean = 3.83) ( $t_{53} = 2.02, p = 0.024$ ), consistent with the predicted effect of H2. Furthermore, analyses of Hypotheses 3 & 4 yields results that are consistent with those discussed previously.

### **VI. CONCLUSION**

Our study is designed to provide preliminary insights about the effects of social media consumption on accounting professionals. Our findings demonstrate that auditors who view social media content of their peers participating in rewarding activities collect and evaluate less audit evidence than auditors who do not view such content. Additionally, we find that the negative effects associated with viewing social media content featuring peers' rewarding social activities are reduced when participants view content posted by other auditors in a professional

context, further supporting social comparison theory as a framework for social media investigations. This finding is important because it highlights practical interventions that can reduce the adverse effects associated with social media consumption. Finally, we contribute to psychology research by identifying social comparison theory as an important theoretical framework for explaining the effects of social media content consumption on work performance.

Our findings suggest that the presence of alternative social comparison information (i.e., posts from other professional accountants) alongside social media content featuring peers' rewarding social experiences can alter auditors' perspectives, suggesting an opportunity for future research related to the development of additional social comparison interventions that could help ameliorate the negative influences associated with adverse social comparisons. One potential vehicle for generating this type of social media content would be to focus messaging by firms and advocacy groups (CAQ 2017; SMT 2017; Deloitte 2018) that ask auditors to post more content about their work experiences to social media platforms.

Our study is also subject to several limitations that should be considered when evaluating our results. First, our study only investigates the effect of an intervention depicting the work experiences of other auditors during their busy season. Because it is unclear whether the effects we observe would persist if auditors viewed content featuring auditor peers who were under lighter workloads, future research is needed to determine whether other types of peer referent work experiences would affect auditors differently. Another limitation of our study relates to potential differences in diagnosticity between the different evidence items auditors could collect and evaluate. Although three experienced auditors independently analyzed our case materials and unanimously agreed that all evidence items were useful for completing the assigned audit task and that there were no significant differences in the diagnosticity of information between

evidence items, it is possible that some participants may have perceived differences in diagnosticity between evidence items which could have affected their judgment and decision making. Relatedly, we also cannot definitively claim that it is normatively correct for auditors in our study's setting to collect and evaluate all available pieces of audit evidence. However, we gain comfort in the appropriateness of our dependent variable because each piece of information provides unique information that would be useful in accurately developing an estimate of revenue.

Finally, we anticipated that auditors' evidence evaluation would influence their subsequent audit judgments because of the differences in auditors' evidence review between treatment conditions. While we did find evidence of certain indirect effects of social media content on subsequent audit judgments, we did not find evidence of other indirect effects that we had anticipated, nor did we find evidence of the direct effect of social media content on auditor judgments that we had expected. As such, we believe that additional research is necessary before definitive conclusions about the effects of social media on auditor judgment can be drawn. Specifically, other potential auditor judgments may be more susceptible to the effects of social media content consumption than the measures we investigated in this study. Given the prevalence of social media use among auditors, future research should continue exploring whether social media content could influence other important audit judgments as findings in this area would have pervasive and important implications for the audit profession.

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Appendix A  
Social Media Feed Example Posts

Control  
Boston Sightseeing



Sarah Kessler

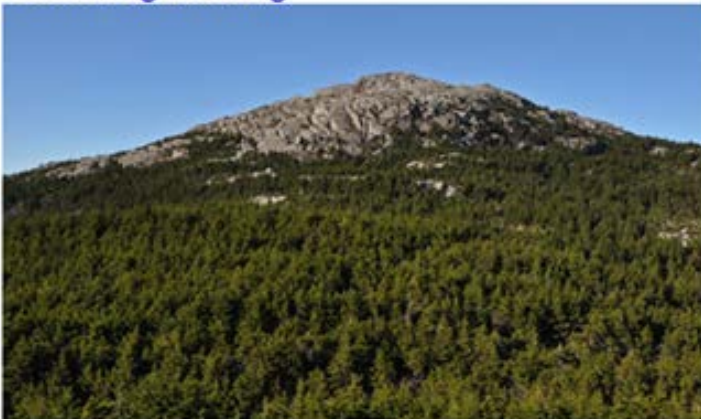
Desserts at Mike's Pastry. #BostonSightseeing



Mike Owen

Just an hour from Boston, Mt. Monadnock is a great place to spend your day.

#BostonSightseeing



PRE

Peers enjoying recreational experiences



Sarah Kessler

Although we were stuffed after our fantastic North End dinner, we couldn't skip a visit to Mike's! #EnjoyTheCity



Mike Owen

It took some work, but we finally got our squad together for a hike on Mt Monadnock. It was AMAZING!



## Mixed Auditors discussing work



Alyssa Dremen

The best audit team you could ever ask for, but obviously exhausted after working late last night. [#anotherlatenight](#)



Madison Banks

Getting ready to go on a late night coffee run with my [#YourFirm](#) favorites. These folks make busy season work [#YearEndAuditWork](#).



**Appendix B**  
**Audit Information Dashboard**

<i>Available Audit Information</i>	
<i>Item</i>	<i>Availability</i>
Location Occupancy Report—Miami (REQUEST)	Time Delay
Location Occupancy Report—Savannah (REQUEST)	Time Delay
Location Occupancy Report—Asheville (REQUEST)	Time Delay
Location Occupancy Report—Portland (REQUEST)	Time Delay
Conference Bookings Information (REQUEST)	Time Delay
Flood Induced Business Interruption Information (REQUEST)	Time Delay
Client Room Revenue Rate Trends Report (PROVIDED)	Immediate
Industry Report (PROVIDED)	Immediate



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**Appendix C**  
**Audit Case Information Consistency Mapping**

<b>Item</b>	<b><i>Supporting Information for Client Explanation</i></b>		
	<b>Location</b>	<b>Availability</b>	<b>Consistency with Client Explanation</b>
Client indicates occupancy was higher (in general) in the current year than the prior year.	Individual Location Occupancy Reports (4)	15 Second Delay (each)	<b>Inconsistent</b> —Although the industry report corroborates more demand for rooms and higher room rental rates for the hotel industry, only one of the client’s properties had an increase, and three had decreases. However, year averages are not provided in the experimental materials and only monthly averages are presented to participants.
Client notes new business was obtained by booking several large conferences throughout the year.	Conference Bookings Information	15 Second Delay	<b>Inconsistent</b> —The Portland hotel manager notes that two new conferences were held at their property, but of the 30 conventions they hosted in the previous year, only 24 contracted with the hotel for their lodging needs again in the current year.
Client notes that the Asheville location was closed for a week due to flooding in October.	Flood Induced Business Interruption Information	15 Second Delay	<b>Inconsistent</b> —The Asheville manager indicated the property was closed for 12 days, a materially longer period of time than indicated by management.
Client notes that while Miami tourism was down during the current year in general, occupancy for the year at their Miami location actually increased, which contributed to the revenue increase.	Industry Report and Individual Location Occupancy Reports (4)	Immediate and 15 Second Delay (each), respectively	<b>Inconsistent</b> —Industry report indicates that only Miami hotels offering substantial rental discounts were able to preserve their occupancy rates. Additionally, the Miami occupancy report indicates that average occupancy actually decreased for the year at the Miami location.

Client indicates that average room rates increased from 20X5 to 20X6.	Client Room Revenue Rate Trends Report	Immediate	<b>Inconclusive</b> —Industry report indicates current year averages that are consistent with the occupancy report. However, the only information provided about prior year rates is contained in the Rate Trends Report which presents rolling average rates for the prior 12 months and indicates only that a rate increase for the current year was proposed, but not finalized.
Reported unaudited revenue for the year is \$21.2 million.	Individual Location Occupancy Reports (4)	15 Second Delay (each)	<b>Inconsistent</b> —Detailed analytical procedures using occupancy report revenue information yield an estimate that is materially less than the client's unaudited revenue.



**TABLE 1**  
**Participant Demographics by Condition**

<b>Item</b>	<i>Treatment Condition</i>		
	<b>Control N = 21</b>	<b>PRE N = 18</b>	<b>Mixed N = 17</b>
<b>Gender (male frequency)</b>	<b>11</b>	<b>11</b>	<b>11</b>
<b>Age (Mean)</b>	<b>24.10</b>	<b>24.80</b>	<b>24.81</b>
<b>Experience in years (Mean)</b>	<b>1.37</b>	<b>3.00<sup>a</sup></b>	<b>1.72</b>

Notes:

<sup>a</sup> Two participants in the PRE condition were a partner and senior manager. Excluding these two participants from our analysis does not qualitatively change any of our inferences.



**TABLE 2**  
**Panel A: Descriptive Statistics**

Item	<i>Mean (SD) [Minimum, Maximum] by Treatment Condition</i>		
	<b>Control N = 21</b>	<b>PRE N = 18</b>	<b>Mixed N = 17</b>
Evidence Reviewed <sup>a</sup>	3.71 (1.93) [0, 6]	2.17 (1.82) [0, 5]	3.59 (2.37) [0, 6]
Negative Affect <sup>b</sup>	-0.24 (0.81) [-2.22, 1.14]	0.21 (0.81) [-0.67, 2.17]	0.06 (0.98) [-0.67, 2.91]
Peer Reward Comparisons <sup>c</sup>	-0.23 (1.09) [-1.82, 1.91]	0.38 (0.98) [-1.54, 2.11]	-0.12 (0.83) [-1.82, 1.21]
Peer Work Comparisons <sup>d</sup>	5.62 (1.83) [2, 8]	5.72 (1.49) [3, 8]	5.18 (1.71) [2, 7]

**Panel B: Test of Hypotheses**

<b>Hypothesis 1:</b>	d.f.	t-statistic	<i>p</i> <sup>e</sup>
Evidence Reviewed: Control versus PRE	53	2.36	0.011
<b>Hypothesis 2:</b>			
Evidence Reviewed: PRE versus Mixed	53	2.06	0.022

Notes:

a Total number of audit evidence items requested and subsequently evaluated (minimum = 0, maximum = 6).

b Negative Affect is a combination of measures of three negative affective states found in the literature to be related to social media content: Sad, Gloomy, and Depressed.

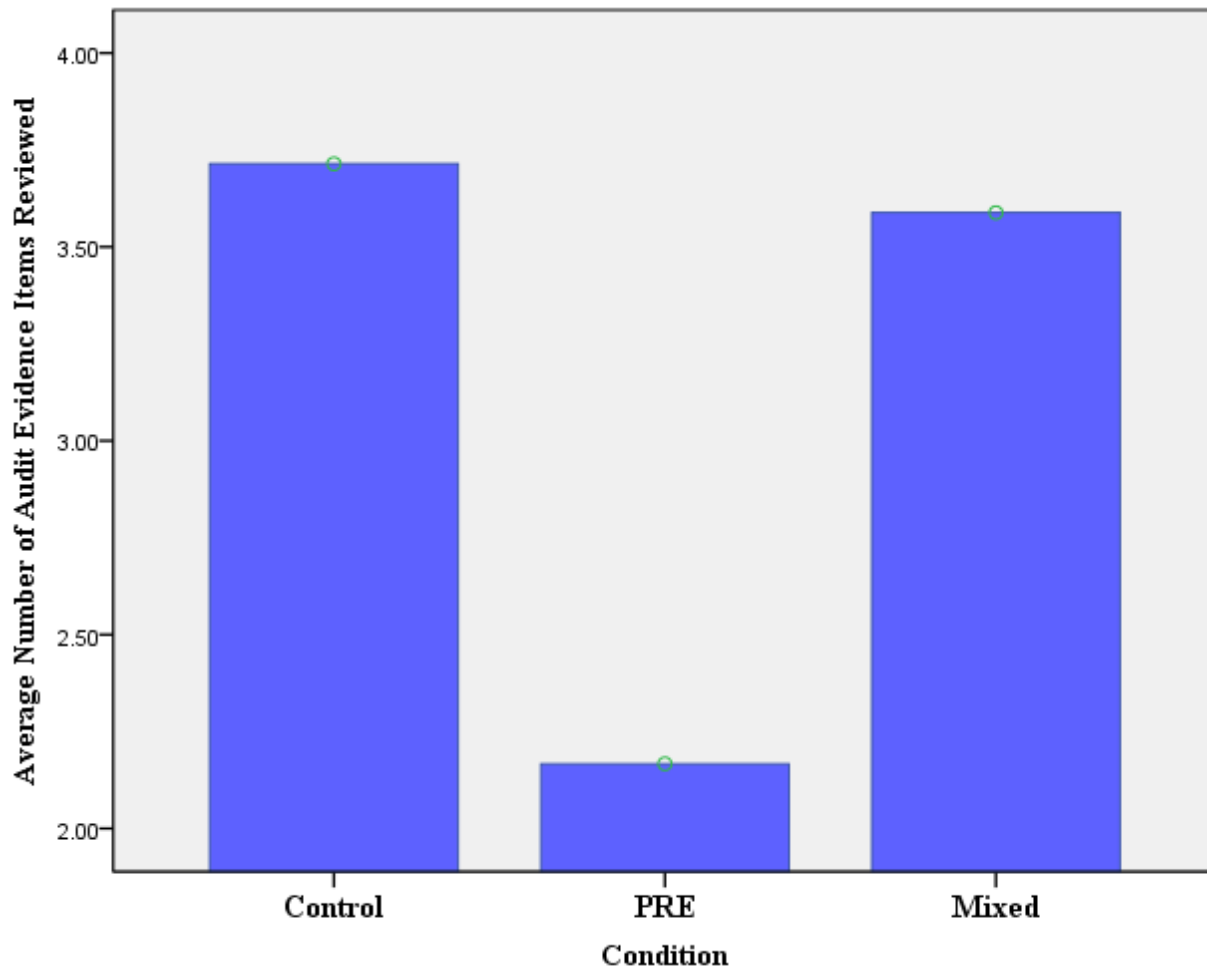
c Peer Reward Comparisons is a combination of two measures. The first captures perceptions of rewarding experiences compared to peers using the following: "I feel my peers are having more rewarding experiences than I am." With a 0 being Strongly Disagree and 8 being Strongly Agree. The second captures perceptions of how much one is socializing compared to peers using the following: "I feel that I do not get out to socialize as frequently as my peers." With a 0 being Strongly Disagree and 8 being Strongly Agree.

d Peer Work Comparisons represents participants' response to the following question: "I believe I work more than my peers." With a 0 being Strongly Disagree and 8 being Strongly Agree.

e All p-values are reported one-tailed.

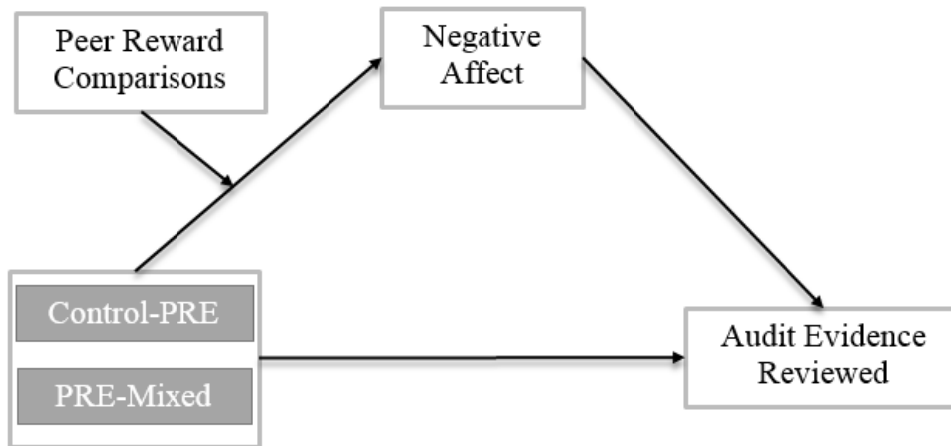


**FIGURE 1**  
**Audit Evidence Reviewed**



Notes: This figure presents means plots of the number of time-delayed, audit information items participants requested and subsequently evaluated (maximum = 6) by treatment condition.

**Figure 2: Moderated Mediation Analysis – Peer Reward Comparisons**



Indirect effect test	Predicted Sign	Path Estimate	Bootstrapped Estimates
Path from Control-PRE to Evidence Reviewed through Negative Affect	-	-0.447	95% of bootstrapped estimates < -0.044
Path from PRE-Mixed to Evidence Reviewed through Negative Affect	-	0.126	95% confidence interval contains zero [-0.351, 0.661]

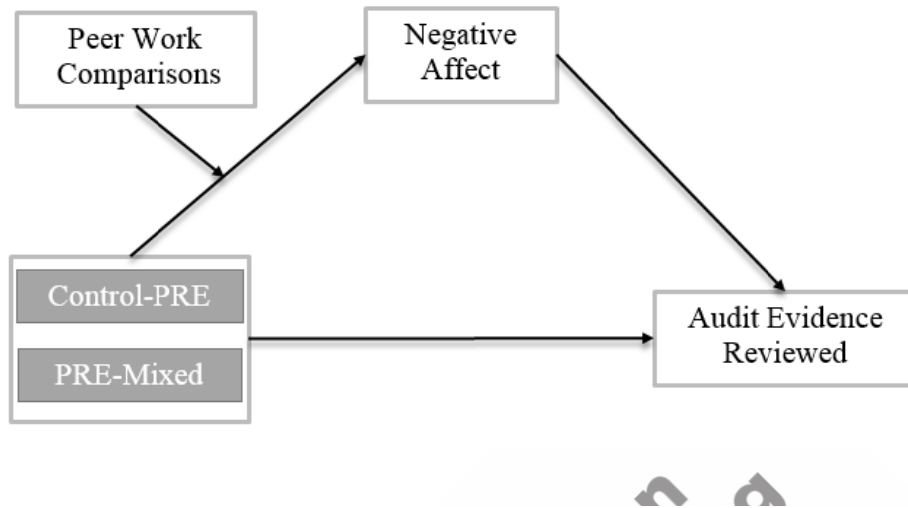
Individual Path Estimates and Tests of Significance

Outcome variable: Negative Affect				
	Coefficient	t-statistic	p	
Control-PRE	0.267	0.95	0.347	
PRE-Mixed	0.102	0.36	0.723	
Peer Reward	-0.092	-0.52	0.606	
Peer Reward * Control-PRE	0.632	2.36	0.022	
Peer Reward * PRE-Mixed	-0.179	-0.56	0.577	

Outcome variable: Audit Evidence Reviewed				
	Coefficient	t-statistic	p	
Control-PRE	-1.221	-1.85	0.071	
PRE-Mixed	1.320	1.96	0.056	
Negative Affect	-0.706	-2.22	0.031	

Note: the outcome variable, audit evidence reviewed, is the total number of audit evidence items requested and subsequently evaluated by the auditor (minimum = 0, maximum = 6). All p-values for individual paths are reported two-tailed.

**Figure 3: Moderated Mediation Analysis – Peer Work Comparisons**



Indirect effect test	Predicted Sign	Path Estimate	Bootstrapped Estimates
Path from Control-PRE to Evidence Reviewed through Negative Affect	-	0.133	95% confidence interval contains zero [-0.123, 0.408]
Path from PRE-Mixed to Evidence Reviewed through Negative Affect	-	-0.249	95% of bootstrapped estimates < -0.001

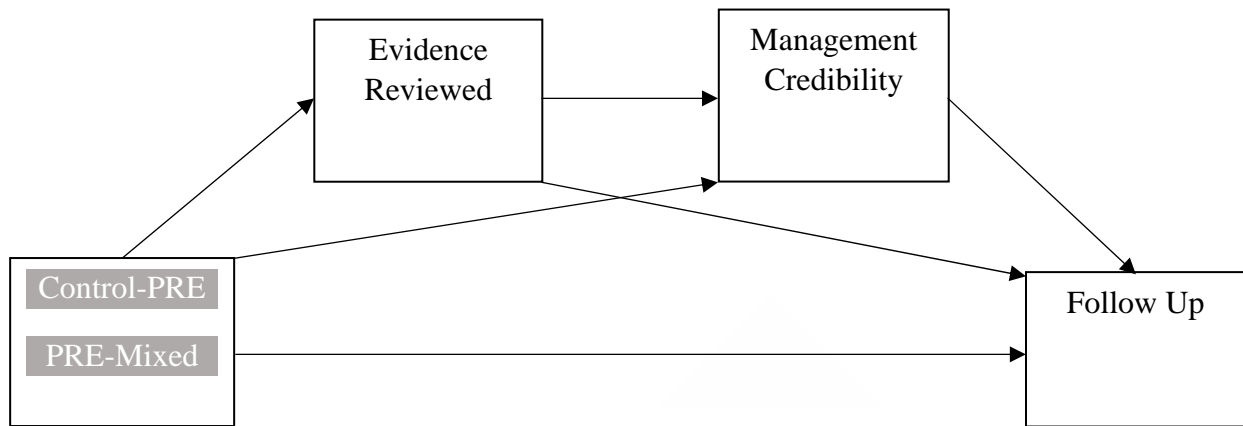
**Individual Path Estimates and Tests of Significance**

Outcome variable: Negative Affect				
	<u>Coefficient</u>	<u>t-statistic</u>	<u>p</u>	
Control-PRE	1.506	1.49	0.143	
PRE-Mixed	-2.013	-1.92	0.061	
Peer Work	0.106	1.03	0.308	
Peer Work * Control-PRE	-0.188	-1.10	0.278	
Peer Work * PRE-Mixed	0.353	1.91	0.062	

Outcome variable: Audit Evidence Reviewed				
	<u>Coefficient</u>	<u>t-statistic</u>	<u>p</u>	
Control-PRE	-1.221	-1.85	0.071	
PRE-Mixed	1.320	1.96	0.056	
Negative Affect	-0.706	-2.22	0.031	

Note: the outcome variable, audit evidence reviewed, is the total number of audit evidence items requested and subsequently evaluated by the auditor (minimum = 0, maximum = 6). All p-values for individual paths are reported two-tailed.

**Figure 4: Mediation Analysis: Auditor Perceptions of Management Credibility and Likelihood of Following Up with Supervisor**



Indirect effect test	Predicted Sign	Path Estimate	Bootstrapped Estimates
Control-PRE to Evidence Reviewed to Management Credibility to Follow Up	-	-0.059	95% confidence interval contains zero [-0.181, 0.027]
PRE-Mixed to Evidence Reviewed to Management Credibility to Follow Up	+	0.055	95% confidence interval contains zero [-0.023, 0.219]
Control-PRE to Evidence Reviewed to Follow Up	-	-0.383	95% of bootstrapped estimates < -0.061
PRE-Mixed to Evidence Reviewed to Follow Up	+	0.352	95% of bootstrapped estimates > 0.021
Control-PRE to Management Credibility to Follow Up	?	0.103	95% confidence interval contains zero [-0.178, 0.487]
PRE-Mixed to Management Credibility to Follow Up	?	-0.299	95% confidence interval contains zero [-0.023, 0.219]

**Individual Path Estimates and Tests of Significance**

	Coefficient	t-statistic	<i>p</i>
Control-PRE on Evidence Reviewed	-1.548	-2.36	0.011
PRE-Mixed on Evidence Reviewed	1.422	2.06	0.022
Evidence Reviewed on Management Credibility	-0.106	-1.65	0.106
Control-PRE on Management Credibility	-0.284	-0.87	0.386
PRE-Mixed on Management Credibility	0.822	2.43	0.018
Management Credibility on Follow Up	-0.363	-1.78	0.081
Evidence Reviewed on Follow Up	0.248	2.54	0.014
Control-PRE on Follow Up	0.531	1.10	0.275
PRE-Mixed on Follow Up	-0.716	-1.37	0.178

Note: All p-values for individual paths are reported two-tailed.