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Send Correspondence to:

Sang-Heui Lee, Editor-in-Chief

Journal of Managerial Issues

Pittsburg State University, 1701 S. Broadway, Pittsburg, KS 66762

E-mail: slee@pittstate.edu

Send submissions to JMI@pittstate.edu

Phone: 620-235-4575

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In the Eyes of the Helper and Recipient: A Help-Giving and Help-Receiving Model in Organizations..... 355
Shih Yung Chou, Tree Chang, and Bo Han

Despite its popularity in the literature, helping behavior has been investigated primarily from the helper’s perspective with an implicit assumption that helping behavior is a static, rather than a process, organizational phenomenon, thus leaving the literature of helping behavior incomplete. Synergizing various streams of research on helping behavior, the authors develop a theoretical model of the help-giving and help-receiving process. Specifically, the authors discuss the process through which help giving and help receiving occur by simultaneously considering the helper and recipient. As a result, the proposed theoretical model highlights specific behaviors and responses that the helper and recipient demonstrate from beginning to end of the helping process. Theoretically, this article provides a dyadic and process approach for future research investigating helping behavior in organizations.

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This study examines the association between auditors’ going concern opinions and FIN 48 reserves. The existence of the reserve may indicate tax uncertainty and thus a future obligation, or reflect tax avoidance strategies that enhance firm value. Using a sample of financially distressed firms over the period 2007-16, the study finds that the probability of a going concern opinion is reduced when a firm reports a FIN 48 reserve suggesting that auditors consider FIN 48 reserves as value enhancing in their going concern assessments. These results are contextual however as this reduction is not found for firms that report tax-related material weaknesses or for firms with low managerial ability. Overall the results provide some evidence on the role of FIN 48 reserves and how auditors evaluate the reserves in assessing the going concern status of client firms.

The Dark Side of Power in Innovation Adoption388
 Somnath Banerjee, Rajani Ganesh Pillai, Joseph M. Jones,
 Kuo-Ting Hung, and Chanchai Tangpong

According to business strategy literature, power in business transactions is considered to be a source of competitive advantage, and it is assumed that more power is better. Extant literature also posits that innovation is another source of competitive advantage and critical to firm long-term viability. This research examines the effect of power differential on innovation adoption in the context of business-to-business exchange. Results of an experimental study show that greater power has a negative effect on innovation adoption, thus suggesting a potential liability of power differential. Cognitive biases in managerial decision-making arguably are power-induced and explain the negative effect of power differential on innovation adoption. Relational norms are hypothesized as a mechanism to mitigate the negative effect of power differential on innovation adoption, but are not empirically supported in this study. Theoretical and managerial implications of the findings are also discussed.

Resume Assessors' Experiences, Attitudes toward Job Context, and Corresponding Evaluations and Associated Confidence..... 409
 Richard R. Camp, Denise Tanguay, Megan Endres, and
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The screening of applicants' resumes has significant implications for both organizations and candidates. However, little is currently known about the relationship between the attitudes and experiences of the people screening resumes (assessors) and their resulting evaluations. The present study examined this relationship, and results indicated that attitudes towards job context (collegiate sports experience) were strongly related to the resume reviewing process. Assessors' overall attitudes towards sports in their own lives predicted overall and leadership ratings but were not related to assessor confidence in ratings. Assessors' attitudes towards access to sports for others predicted overall, leadership, and teamwork ratings, along with confidence in all three of those ratings. The moderating effect of rater experience in the sports context and experience reviewing resumes are discussed. The results suggest that the assessor's attitudes toward the job context for these candidates plays a key role in the resume reviewing process. These results help in filling the gap in research involving how assessor individual difference variables relate to resume evaluations. Further research is needed to investigate the extent to which assessors' attitudes and experience in other job contexts may affect ratings, and subsequently affect the hiring process.

The Moderating Effect of Age on the Relationship between Coworker Support and Behaviors that Predict Derailment 430
William A. Gentry, Tracy Lambert Griggs, and Scott P. Mondore

This research investigates the relationship between coworker support and behaviors that predict derailment among organizational leaders. In line with recent research on supportive work environments and successful ageing at work, this study also assesses the degree to which this relationship is amplified for older leaders. Participants include 329 practicing managers participating in an executive leadership development program. Perceptions of coworker support were obtained from self-assessments and behaviors that predict derailment were assessed from the perspective of the manager’s boss. Managers who reported higher coworker support had lower ratings of behaviors that predict derailment. This relationship was fully moderated by age such that the relationship was significant for older managers, but not for younger managers. Results shed light on the role of age differences in response to workplace support and have implications for addressing behaviors that predict derailment among organizational leaders.

In the Eyes of the Helper and Recipient: A Help-Giving and Help-Receiving Model in Organizations

Shih Yung Chou

Dillard College of Business Administration
Midwestern State University
shihyung.chou@msutexas.edu

Tree Chang

Department of Digital Media Design
Tatung Institute of Technology, Taiwan
tree@ms2.ttc.edu.tw

Bo Han

Department of Marketing & Business Analytics
Texas A&M University – Commerce
bo.han@tamuc.edu

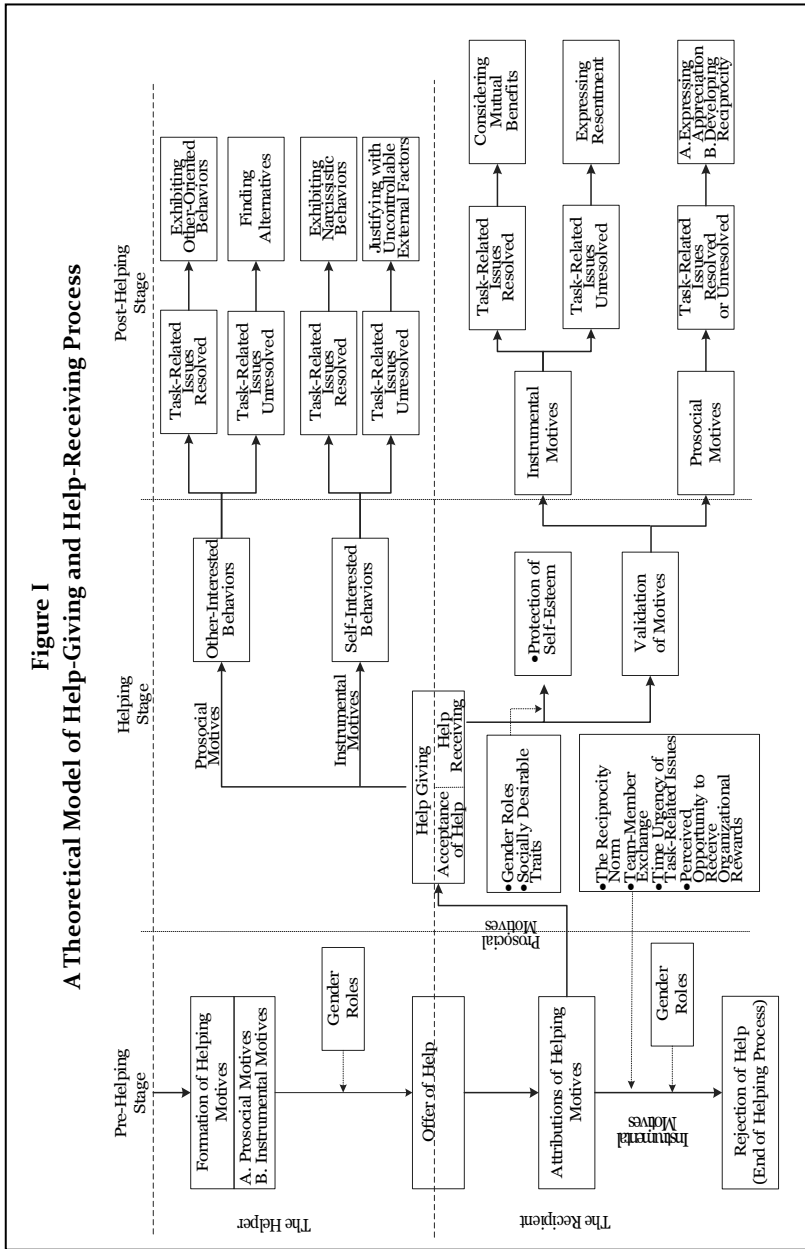
Since its inception in the literature thirty-five years ago, organizational citizenship behavior (OCB) describes individual voluntary and discretionary behaviors that help promote organizational effectiveness (Organ *et al.*, 2006). Additionally, OCB has commonly been viewed as a multi-dimensional construct (e.g., Podsakoff *et al.*, 2000). Among various distinct OCB dimensions, help giving, defined as an individual's voluntary actions aimed at assisting and supporting coworkers experiencing work-related issues (Mossholder *et al.*, 2011), has received a substantial amount of scholarly attention because it is strongly predictive of effective organizational functioning (Podsakoff *et al.*, 2000).

Given the importance of help giving, three broad research streams can be found in extant literature. The first research stream conceptualizes behaviors that capture the essence of help giving. For example, Eisenberg and Fabes (1991) propose the concept of prosocial behavior to describe voluntary behavior intended for benefiting others. Contextual performance describes going above and beyond task performance to support overall organizational goal attainment (Borman and Motowidlo, 1993). Later, Van

Scotter and Motowidlo's (1996) study introduces the concept of interpersonal facilitation, which includes behaviors that are cooperative, considerate, and helpful. Altruism, which has been well studied in organizational studies, psychology, and sociology literatures (e.g., Batson and Shaw, 1991; Li *et al.*, 2014; Piliavin and Charng, 1990), represents individual concern for others' welfare and personal sacrifice. The second research stream attempts to explore motives for help giving from various theoretical perspectives such as social exchange theory (e.g., Liu *et al.*, 2011), leader-member exchange theory (e.g., Van Dyne *et al.*, 2008), and team-member exchange theory (e.g., Chou and Chang, 2016). Finally, the third research stream seeks to identify consequences of help giving such as improved individual well-being (e.g., Weinstein and Ryan, 2010), increased reward recommendations (e.g., Rosopa *et al.*, 2013), and increased job performance (e.g., Dalal *et al.*, 2012). Although help giving may lead to experiences of role overload, job stress, and work-related strain (Bolino *et al.*, 2010), it is still an important factor to organizational efficiency and effectiveness.

Despite existing scholarly progress, the literature can be advanced in the following directions. First, by its conceptualization, helping is dyadic where both the helper and recipient are present in a helping context. Substantial research effort, however, has been devoted to the helper leading to insufficient knowledge concerning the recipient (Lyons and Scott, 2012). Second, even though scholarly interest in help giving has grown over the past few decades, prior research has yet to utilize a process approach that holistically describes help giving from beginning to end. Finally, although Weinstein and Ryan (2010) have pointed out that the helper's experience might not be equivalent to that of the recipient, little distinction has been made between the helper's and recipient's experience of the helping situation. This, therefore, calls for more research exploring both the helper's and recipient's experiences in the helping relationship.

To fill the aforementioned gaps, the authors integrate the three streams of research and propose a theoretical model of help-giving and help-receiving process. Specifically, the authors propose that helping is a dyadic process that includes (1) the pre-helping stage where helping motives are formed and attributed, (2) the helping stage where help giving and help receiving occur, and (3) the post-helping stage where the helper and recipient react to the results of helping. Figure I shows the proposed theoretical model.



A THEORETICAL MODEL OF THE HELP-GIVING AND HELP-RECEIVING PROCESS

The Pre-Helping Stage: Formations and Attributions of Helping Motives

Although help giving can be a response to individual perceptions of the job and/or organization, individuals may consciously choose to engage in help giving for certain purposes other than facilitating task accomplishment. Therefore, help giving can be better understood from a functional perspective where an underlying purpose or motive is responsible for help-giving engagement (Rioux and Penner, 2001). Among various functional motives, two broad categories of help-giving motives can be found in the literature. First, prosocial motives, such as prosocial values (e.g., Organ *et al.*, 2006), and concern for others (e.g., Tang *et al.*, 2008) have been identified as motives for help giving in various contexts. Second, instrumental motives can be responsible for the helper's engagement in help giving due to the potential attainment of instrumental benefits such as impression management (e.g., Grant and Mayer, 2009), self-enhancement (e.g., Yun *et al.*, 2007), and organizational rewards (e.g., Bamberger and Levi, 2009). It is worth noting that prior research has shown how different motives can interactively trigger help giving (e.g., Takeuchi *et al.*, 2015). In line with prior research utilizing the functional perspective, the authors suggest that the helper forms prosocial, instrumental, or a mixture of different motives prior to giving help.

Once helping motives are firmly formed, the helper extends his or her intent to help to the recipient. Upon receipt of offer of help, the recipient is likely to initiate causal attributions as to why the helper intends to help. Additionally, while attributions of help-giving motives could be subjective and inaccurate (Farrell and Finkelstein, 2011), attributions of help-giving motives is an important behavioral outcome prior to accepting help because help receiving is self-threatening and implies incompetence and dependence (Lee, 2002; Nadler, 1991).

Similar to the helper's help-giving motives, the recipient's attributions of help-giving motives can include prosocial, instrumental motives, or a mixture of different motives. When the recipient attributes greater levels of help giving to prosocial motives, the recipient is more likely to perceive that the helper has a genuine desire to help and benevolently intends to improve others' well-being (Bolino, 1999). Such selfless helping intent perceived by the recipient leads to positive and favorable evaluations of the helper and help giving. As such, the authors expect that the greater extent of prosocial motives attributed by the recipient, the more likely the recipient accepts the helper's offer of help. On the contrary, because help giving with instrumental motives is generally perceived as a self-serving behavior aimed at benefiting oneself (Rioux and Penner, 2001), it is likely to be considered an opportunistic and exploitive behavior. It is also noteworthy that while reciprocity may trigger help giving (Deckop *et al.*, 2003), it often contains instrumental objectives (e.g., returning help as a way to reduce outstanding obligations) (Molm *et al.*, 2007). As such, the authors categorize reciprocity into instrumental motives. Consequently, the authors expect that the recipient may view help giving with instrumental motives unfavorably and negatively. In other words, the recipient is more likely to reject the helper's offer of help when a greater extent of instrumental motives is attributed. Clearly, if the recipient rejects the help, helping process ends in the pre-helping stage. Given the above discussion, the authors propose the following:

Proposition 1a: The stronger the help-giving motivations are, the more likely help giving is offered.

Proposition 1b: The acceptance and rejection of offer of help depends upon the recipient's attribution of the help-giving motives, such that greater degrees of help-giving motives attributed to prosocial motives (or instrumental motives) lead to higher likelihoods of acceptance of help (or rejection of help).

Considering Gender-Role Expectations in Offer of Help

Although help-giving motives can be responsible for one's offer of help, gender may govern norms of offers of help. For instance, females often exhibit higher levels of caring, kindness, empathy, and sympathy than do males (Feshbach, 1982; Gilligan, 1982). However, because helping others can be viewed as being heroic and standing up for others in need, which are generally expected in males, help giving seems to be consistent with male gender-role expectations. In other words, it may be expected that males offer more help to others than do females, which has been supported by some prior studies (e.g., Baumeister and Sommer, 1997; Feinman, 1978). Additionally, findings of Eagly and Crowley's (1986) meta-analytic review suggest that females receive more help than males do. The male gender-role expectations, which reinforce men to be tough, independent, and competitive (Eagly and Steffen, 1986) may partly explain why males tend to receive less help compared to females. In line with prior research findings, the authors propose the following:

Proposition 1c: Holding help-giving motives constant, male gender-role expectations have a greater impact on offer of help than female gender-role expectations.

Conditions Altering Rejecting Help Giving with Instrumental Motives

As noted previously, help giving is interpersonal in nature (Chou and Stauffer, 2016), and the helper and recipient exhibit some levels of social interdependence in a helping relationship (Chou and Chang, 2016). Hence, norms of reciprocity and team-member exchange (TMX) are particularly relevant to the analysis of whether help giving is accepted or rejected. Moreover, no matter what motivates help giving, help giving, on its face value, aims at improving the recipient's in-role performance (Mossholder *et al.*, 2011). As such, when evaluating whether to accept or reject help giving, the recipient may assess the urgency of resolving the task-related issues. Furthermore, because help receiving is usually seen as self-threatening (Nadler and Fisher, 1986), the recipient is likely to evaluate if possible rewards outweigh the self-threatening nature of help receiving. As such, the authors propose that (1) the reciprocity norm, (2) team-member exchange (TMX), (3) time urgency of the task-related issues, and (4) perceived opportunity to receive organizational rewards, can potentially alter the recipient's decisions to reject an offer of help giving with instrumental motives.

The reciprocity norm. One of the fundamental principles found in most societies is the reciprocity norm (Gouldner, 1960). In general, the reciprocity norm reflects socially-accepted rules that one party extends a resource to another party who is then obligated to return the favor at a future date (Wu *et al.*, 2006). In line with the concept of the reciprocity norm, the authors expect that the recipient is less likely to reject this

reciprocated help giving when the helpers' offer of help is viewed as a returned favor by the recipient even when helping motives are attributed to instrumental motives. Accordingly, the authors propose the following:

Proposition 2a: The positive relationship between the recipient's attributions of instrumental motives and rejection of the helper's offer of help is weaker when there is stronger reciprocity norm.

Team-member exchange. TMX describes an individual's reciprocal exchanges with other team members in terms of ideas, feedback, efforts, and resources (Seers, 1989). Generally, higher levels of quality of TMX result in greater degrees of help giving among members through a sense of identification (Farmer *et al.*, 2015). Additionally, the sense of identification enhances an individual's perceived openness and support between members in the team (Liao *et al.*, 2013). Thus, it is expected that the recipient perceives greater importance for accepting the helper's offer of help when higher quality of TMX is present even when helping motives are attributed to instrumental motives. Accordingly, the authors propose the following:

Proposition 2b: The positive relationship between the recipient's attributions of instrumental motives and rejection of the helper's offer of help is weaker when there is a higher quality of team-member exchange.

Urgency of task-related issues. Due to the intensity of competition among organizations, many organizations may require certain tasks (e.g., customer complaints) to be completed rapidly under certain time restrictions (Goldhammer *et al.*, 2014). Thus, employees may encounter time-urgent task issues that they are unable to resolve independently. In such situations, the recipient perceives a greater need for accepting the helper's help even when it is attributed to instrumental motives. As a result, the authors propose the following:

Proposition 2c: The positive relationship between the recipient's attributions of instrumental motives and rejection of the helper's offer of help is weaker when it is more urgent to resolve task-related issues.

Perceived opportunity to receive organizational rewards. Because help giving aims at resolving the recipient's task-related issues, it increases the recipient's ability to complete the assigned tasks needed for receiving organizational rewards. As such, the recipient's decision to accept or reject the helper's offer of help may be affected by the recipient's perceived opportunity to receive organizational rewards upon task completion. In line with the existing findings (e.g., Van Scotter *et al.*, 2000), the authors expect that the recipient is less likely to reject the helper's offer of help attributed to instrumental motives when there is a greater opportunity to receive organizational rewards. Accordingly, the authors propose the following:

Proposition 2d: The positive relationship between the recipient's attributions of instrumental motives and rejection of the helper's offer of help is weaker when there is a greater opportunity to receive organizational rewards upon task completion.

Gender-role expectations. Gender-role expectations not only can influence offer of help, but also may determine rejection of help. Specifically, because receipt of help signifies dependency and disclosure of weaknesses (Lee, 2002), receiving help seems to be more congruent with female gender-role expectations (e.g., self-disclosure, intimacy, and gregariousness) than with male gender-role expectations (e.g., competitive orientation and success) (Beutel and Marini, 1995). Additionally, prior evidence has

indicated that male gender-role expectations are predictive of avoidance of help seeking (e.g., Robertson and Fitzgerald, 1992). Given the above, the authors propose the following:

Proposition 2e: The positive relationship between the recipient's attributions of instrumental motives and rejection of the helper's offer of help is stronger when the recipient possesses higher levels of male gender-role expectations.

The Helping Stage: Behaviors of Help Giving and Help Receiving

Once the recipient accepts the helper's help, the helping process enters the helping stage. In this stage, the helper engages in actual helping acts along with certain behaviors that may signify the original helping motives, whereas the recipient receives the helping acts. Even though the major purpose of giving help is to assist the recipient with task-related issues, the helper may also attempt to fulfill personal needs and goals through help giving. Such personal needs and goals are likely to be congruent with motives for helping formed in the pre-helping stage. Thus, the helper with higher levels of prosocial motives is more likely to demonstrate more other-interested behaviors such as a genuine concern for the recipient's welfare and personal generosity to contribute to the recipient's task performance (Bolino and Turnley, 2005). On the other hand, the helper with greater degrees of instrumental motives is more likely to engage in more self-interest behaviors that strategically allow him or her to obtain instrumental benefits such as image enhancement, ingratiation, and status enhancement (Snell and Wong, 2007).

From the recipient's perspective, help receiving not only implies personal incompetence and dependence of the recipient (Lee, 2002), but also triggers the acknowledgment of inferiority to the helper (Nadler, 1991). Thus, the recipient is likely to display behaviors focused on protection from a threat to self-esteem because self-esteem is built on senses of self-efficacy, competence, and independence from others (Gist and Mitchell, 1992). Examples of such behaviors may include defending him- or herself for not being properly trained, not having adequate resources, and not being assigned appropriate tasks. Additionally, the recipient may validate his or her initial attributions of helping motives. As suggested by Kelley (1972, 1973), individuals attempt to validate their causal attributions by examining if there are no alternative causes or lacks another sufficient cause. Extending Kelley's attribution theory, the authors propose that the recipient may attempt to validate the accuracy of the initial attributions of the helper's motives through observing the helper's behavioral acts. While the recipient's validation of the accuracy of the initial attributions may be subjective, results of this validation can determine the recipient's subsequent responses. Hence, the authors propose the following:

Proposition 3a: The stronger the prosocial motives (or instrumental motives) are, the more other-interested behaviors (or self-interested behaviors) exhibited by the helper.

Proposition 3b: The more help received, the more self-esteem protective behaviors engaged by the recipient.

Proposition 3c: The more help received, the more validation of the accuracy of the initial helping motive attributions engaged by the recipient.

Factors Influencing Self-Esteem Protection Behaviors

Conceptually, self-esteem represents the overall worth that one places on his- or herself as an individual (Judge *et al.*, 1997). Additionally, self-esteem is moderately heritable due to individual differences (Kendler *et al.*, 1998). Given the function of self-esteem within an individual, it has been noted that feelings of personal worth are maintained by claiming to have socially desirable traits (Brown *et al.*, 2001). For instance, ample evidence has shown that emotional stability and extraversion are predictive of an individual's self-esteem (e.g., Erdle *et al.*, 2009; Robins *et al.*, 2001). On the basis of prior research, the authors further argue that the recipient with higher levels of socially desirable traits is more likely to attempt to protect his or her self-esteem when receiving help. Thus, the authors propose the following:

Proposition 4a: The positive relationship between receipt of help and attempt to protect self-esteem is stronger when the recipient has higher levels of socially desirable traits.

Gender-role expectations have been shown to be an important factor of help receiving (Salminen and Glad, 1992). In particular, female gender role expectations include being nurturing and socially oriented, whereas male gender role expectations are being competitive and achievement oriented (Eagly, 1987). From the perspective of gender role expectations, it can be expected that males may perceive receipt of help more negatively than females. Consequently, males may perceive higher need for protecting self-esteem due to a sense of inferiority resulting from receipt of help compared to females. As such, the authors propose the following:

Proposition 4b: The positive relationship between receipt of help and attempt to protect self-esteem is stronger when the recipient possesses higher levels of male gender-role expectations.

The Post-Helping Stage: Responses to Helping Outcomes

Once the helper and recipient perceive that helping acts undertaken to resolve task-related issues should be discontinued due to the resolution of or the inability to resolve the issues, the helping process enters the post-helping stage. That is, the practical outcomes of helping behavior can be dichotomous: task-issues are resolved or task-issues are unresolved. Furthermore, because whether task-related issues are resolved is directly or indirectly related to the psychological outcomes experienced by the helper and the recipient, the helper and recipient are likely to have different responses when faced with various helping outcomes in the post-helping stage.

Because motives for exhibiting a certain behavior reinforce an individual's effort to attain certain goals and satisfy certain desires (Winter *et al.*, 1998), the helper's responses to helping outcomes can be affected by helping motives specified in the pre-helping stage. In situations where task-related issues are resolved by the helper with prosocial motives, the helper is likely to exhibit other-oriented behaviors directed to the recipient continuously. Examples of such behaviors include ensuring the resolved issues do not recur and ensuring no other issues are created by the existing help. In situations where task-related issues are not resolved by the helper with prosocial motives, the helper is likely to respond to this situation by finding other alternatives that may help resolve the recipient's task-related issues such as identifying another helper.

In contrast, because instrumental motives reinforce an individual's effort to obtain personal interests, the helper is likely to respond to the outcome of helping in favor of him- or herself. For instance, help giving with impression-management motives allows the helper to influence the personal image that others have of him or her strategically (Rosenfeld *et al.*, 1995). Hence, the authors suggest that in situations where task-related issues are resolved by the helper with instrumental motives, the helper is likely to exhibit narcissistic behaviors such as reemphasizing his or her capability and competence. In situations where task-related issues are not resolved by the helper with instrumental motives, the helper is likely to respond to such situations by blaming uncontrollable external factors such as an inadequate amount of time provided and conflict with in-role requirements and highlighting all the effort put forth in help giving. Thus, the authors propose the following:

Proposition 5a: The helper with prosocial motives continuously exhibits other-oriented behaviors directed to the recipient until threats to performance are properly reduced and/or eliminated after the helper resolves the recipient's task-related issues.

Proposition 5b: The helper with prosocial motives continuously finds other alternatives that may resolve the recipient's task-related issues after the helper is unable to resolve the recipient's task-related issues.

Proposition 5c: The helper with instrumental motives exhibits narcissistic behaviors after resolving the recipient's task-related issues.

Proposition 5d: The helper with instrumental motives blames uncontrollable external factors for his or her inability to resolve the recipient's task-related issues and highlights the effort put forth in help giving.

When considering the recipient's perspective, the authors suggest that the recipient's responses to the outcomes of helping are influenced by his or her validation of the helper's motives made in the helping stage because it provides a sense of confirmation. Specifically, the authors propose that regardless of whether task-issues are resolved, the recipient is likely to express his or her appreciation and gratitude when the helper's prosocial motives are validated. This is because prosocial values reflect an individual's other orientation and care for the well-being of other people (Grant and Wrzesniewski, 2010), which allow the recipient to feel being cared about by the helper's enthusiasm (Weinstein and Ryan, 2010). More importantly, because receiving prosocial-motivated help may foster a close relationship between the helper and recipient (Weinstein and Ryan, 2010), the recipient may form a sense of expected reciprocity that return of favor is necessary in the unspecified future.

On the contrary, if the helper's motives are validated as instrumental motives, the recipient's responses to the helping outcomes are then contingent upon whether task-related issues are resolved. If task-related issues are resolved by help giving with instrumental motives, the recipient is likely to view this outcome as a mutually beneficial situation. In situations where task-related issues are not resolved by help giving motivated by instrumental motives, the recipient not only is unable to complete the assigned task, but also agonizes over his or her dependency on the helper (Ames and Lau, 1982), which can lead to resentment of accepting help. Thus, the authors propose the following:

Proposition 5e: Regardless of whether the task-related issues are resolved by help giving with prosocial motives, the recipient expresses his or her

appreciation and gratitude to the helper and develops a sense of expected reciprocity.

Proposition 5f: If the recipient's task-related issues are resolved by help giving with instrumental motives, the recipient views the outcome as a mutually beneficial situation.

Proposition 5g: If the recipient's task-related issues are unresolved by help giving with instrumental motives, the recipient expresses his or her resentment of accepting help.

THEORETICAL CONTRIBUTIONS

This article makes the following contributions to the literature. First, since its emergence in the literature, help giving has been generally assumed to be accepted by the recipient. Therefore, a fundamental question of when and how the recipient rejects offer of help remains ambiguous. Recognizing this gap, the authors explore how attributed helping motives determine acceptance or rejection of offer of help. As a result, this article not only provides a theoretical connection between attribution theory and rejection of help giving, but also offers a potential theoretical base for analyzing conditions where help giving is rejected.

Second, although help giving is critical to the overall effectiveness and efficiency of the organization, receiving help often implies dependence, weakness, and inability (Nadler and Chernyak-Hai, 2014) and, therefore, can be self-threatening. When discussing whether help giving is perceived as threatening, prior research has focused upon the types of help provided such as providing a full solution to a problem or autonomy-oriented help (Nadler, 1997). This approach, however, may fall short of explaining the impact of the recipient's personal actions undertaken to protect one's own self-esteem while being helped. Thus, the article extends the literature by discussing what the recipient may do to preserve self-esteem when being helped.

Finally, existing research has consistently made an implicit assumption that receiving help leads to resolving task-related issues. This has results in an impractical view of help receiving and resolution of task-related issues. This article challenges this assumption and proposes that receipt of help may or may not resolve task-related issues. Drawing upon the dichotomous outcomes of help receiving, this article further contributes to the literature by addressing how the helper and recipient react to different helping outcomes.

IMPLICATIONS FOR PRACTICE

Due to its strong impact on overall organizational performance, help giving has been found to be viewed and evaluated positively by managers (e.g., Rosopa *et al.*, 2013). Through this article, the authors further address the differences between help giving triggered by prosocial and instrumental motives in the three stages of the helping process. As such, the authors suggest that managers who seek to promote helping in the organization using rewards may need to be mindful of the helper's helping motives.

By its definition, help giving is not recognized by the formal organizational reward systems (Organ *et al.*, 2006). However, help giving is often rewarded (Van Dyne and LePine, 1998). While existing research has shown managerial responses to help giving,

this article further highlights how offers of help may be rejected before help giving can even be exhibited. As such, the authors urge managers who wish to include help giving in performance appraisals to be conscious of an employee's effort in helping others that is not accepted. Additionally, this article stresses that the helper's intent may not always result in the recipient's desired outcomes. Thus, the authors advocate managers to ensure clear and quality communication among employees (e.g., the helper and recipient), so that behavioral purposes can be better understood.

Because help giving improves organizational effectiveness, managers are likely to recognize and reward the helper. It is, however, equally important to understand the recipient's need and desire. For instance, if the recipient attempts to acquire relevant task competency, managers can consider establishing formal mentoring relationships where the recipient is formally trained by the helper. More importantly, given the self-threatening nature of receiving help (Nadler and Fisher, 1986), providing help without considering the recipient's needs may result in disruptive outcomes. Consequently, managers may utilize socialization programs to help foster employees' understanding of individual differences and needs.

ASSUMPTIONS OF THE ARTICLE AND FUTURE DIRECTIONS

This article makes several assumptions and, consequently, can be expanded in the following directions. First and foremost, this article assumes that the roles between the helper and recipient are clearly differentiated. Nevertheless, Grodal *et al.* (2015) suggest that help giving and help receiving can be intertwined and interdependent. This raises the question of whether individuals would view the giving and receiving aspects of helping behavior differently when they engage in help giving and help receiving simultaneously. As such, future research is highly encouraged to address the interdependent nature of help giving and help receiving by exploring the process of helping when help giving and help receiving are simultaneously demonstrated by the helper as well as the recipient in the same helping context.

Given that help giving is a discretionary workplace behavior, it is likely that the recipient makes attributions as to why the helper provides help. Additionally, it has been shown that an individual's attributions of helping motives affect their subsequent reactions (Lemoine *et al.*, 2015). Even though prior research findings (e.g., Donia *et al.*, 2016) have demonstrated that helping motives can be attributed accurately, the recipient certainly can make attributions to the helper's motives based upon schemata, stereotypes, and gender-role expectations (Eastman, 1994). A potential future research area can then focus on understanding whether the recipient's perceived accuracy of attributions of helping motives changes the recipient's behavioral responses and psychological needs during the process of being helped.

While help giving represents helping another coworker with task-related issues voluntarily (Mossholder *et al.*, 2011), it can be exhibited differently. In particular, Nadler (1997) suggest that dependency-oriented help (e.g., providing a full solution to a problem) or autonomy-oriented help (e.g., giving tools or instructions that allow the recipient to help him- or herself) can be provided by the helper. Additionally, Schneider *et al.* (1996) propose that help can be provided without an evidence of the need for help on the recipient (i.e., assumptive help). Given the behavioral differences manifested by various types of help giving, the recipient may have different psychological and

behavioral responses when receiving different types of help. Thus, more research is needed to understand the interplay of motives for helping and end goals of the helper and recipient when types of help are considered.

Finally, it is well documented that high-quality exchange relationships foster interpersonal trust, collaboration, learning, and helping (e.g., Farmer *et al.*, 2015). More importantly, high-quality relationships strengthen individuals' willingness to express their positive and negative emotions freely (Brueller and Carmeli, 2011). Existing findings imply that the recipient's view on whether help giving is helpful may be affected by the existing quality of exchange relationship and interpersonal trust (Choi, 2006). Thus, the authors encourage future research to explore the impact of variables at the interpersonal level on the helper's and recipient's psychological and behavioral responses in different stages of helping.

CONCLUSION

Much of the existing research has explored help giving from the helper's perspective without considering the process through which help giving occurs. Recognizing this gap, the authors develop a theoretical model of a help-giving and help-receiving process, which provides a dyadic and process approach for understanding help giving and help receiving in organizations. Practically, the proposed theoretical model may provide managers with crucial guidance in maximizing the benefits of helping in the organization.

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Auditor Going Concern Opinions and FIN 48 Reserves¹

Jagadison K. Aier
Associate Professor
George Mason University
jaier@gmu.edu

Gnanakumar Visvanathan
Associate Professor
George Mason University
gvisvana@gmu.edu

Contingencies are one of the final items that the auditor examines before rendering an opinion on a client's financial statements. Consequently, contingent reserves created due to uncertain tax positions arising from Interpretation 48 of Financial Accounting Standard 109 (FIN 48) issued by the Financial Accounting Standards Board (FASB, 2006), could significantly influence the auditor's assessment of going concern status. However, while there is a growing number of studies on FIN 48 and a well-established literature on determinants of going concern opinions, there is little research examining how auditors evaluate the role of FIN 48 reserves in assessing the going concern status of clients. This study addresses the gap by examining whether FIN 48 reserves increase, decrease, or have no effect on the probability of going concern opinions and whether the implications of FIN 48 reserves differ for firms with auditor-provided tax services or tax-related material weaknesses.

Since 2007, accounting for uncertain tax positions is governed by FIN 48 rules that require firms to evaluate tax positions and establish and disclose reserves for cash tax savings during the current period that could be denied if successfully challenged by the tax authorities. Under FIN 48, firms have to follow a recognition and measurement process regarding their tax positions. A tax position must be more likely than not sustained in the court of highest order based on technical merits, to meet the recognition

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threshold. If the threshold is not met, the firm must record a liability for the entire amount of the benefit. If a position meets the recognition threshold, the firm measures the benefit to be recognized as the largest amount that is cumulatively greater than 50% likely to be sustained upon audit.

Generally accepted auditing standards require that audit reports refer to loss contingencies in financial statements, if the auditor believes that the loss amount is material and probable (AICPA, 1988 Statement on Auditing Standards No. 58, paras. 24-25). The auditor should consider whether a reference is necessary if the loss is reasonably possible. Given the existence of ambiguity in loss contingencies, auditors have two potentially conflicting incentives on whether to refer to the contingencies in their report, or not. If the contingent loss were to occur, there are potential costs to the auditor in terms of litigation and reputation loss and this will incentivize them to refer to the contingency. On the other hand, referencing the contingency may antagonize the client who prefer not to emphasize the seriousness of the potential loss (Nelson and Kinney, 1997). As uncertain tax position is a contingency, auditors likely face conflicting incentives in how they evaluate such reserves.

Using financially distressed firms in *COMPUSTAT* over a ten-year period, this study estimates the going concern opinion model and finds that the log of FIN 48 reserve is negative and significant indicating that the reserves reduce the probability of a going concern opinion even if firms purchase auditor-provided tax services. However, the reduction in the probability of going concern opinion does not hold for FIN 48 reserves of firms that report tax-related material weaknesses consistent with the finding in prior literature that material weaknesses indicate low reliability of the reported numbers. Finally, the results show that the significance of the reserve appears to be primarily for firms with high managerial ability.

This paper contributes to both audit and tax literatures. First, the findings show how auditors consider the role of contingencies such as FIN 48 reserves in providing going concern opinions. In doing so, the study answers the call for research by Carson *et al.* (2013) in understanding what “financial statements variables auditors rely on in practice when making going concern decisions.” Second, the results help clarify the mixed findings on the role of FIN 48 reserves in the tax literature on whether it is a proxy for uncertainty (Donohoe and Knechel, 2014) or whether they are value relevant reserves for uncertain tax positions (Robinson *et al.*, 2015; Koester *et al.*, 2015).

The remainder of the paper is organized as follows. The next section discusses prior literature and develops the main hypothesis. The subsequent section elaborates the methodology followed by the section that describes the data and discusses the main results. The additional analyses section includes robustness and sensitivity tests while the summary section concludes.

LITERATURE AND HYPOTHESIS

The Financial Accounting Standards Board (FASB) issued Interpretation 48 of Financial Accounting Standard 109 commonly known as “FIN 48” in June 2006 (effective for fiscal years beginning after December 15, 2006) to reduce diversity in accounting practices and enhance required disclosures (FASB, 2006). Prior to FIN 48, there were no specific regulatory requirements addressing income tax uncertainty, beyond the accounting rules for contingencies and firms were not required to disclose

the contingent liability for uncertain tax positions. Only a few firms disclosed such liabilities prior to FIN 48 (Gleason and Mills, 2002) and the lack of uniform guidance enabled firms to use the income tax account for earnings manipulation (Dhaliwal *et al.*, 2004). Under FIN 48, a two-step recognition and measurement process is required in assessing each tax position. In the first step, the firm must assess whether a tax position would “more likely than not” survive examination by a tax authority based on the technical merits of the position, such that only tax positions that exceed the “more likely than not” threshold may be recognized in a firm’s financial statements (FASB, 2006). In the second step, the firm should estimate the portion of the tax benefit obtained from the position and the amount at least 50 percent likely to be realized. Difference between tax positions taken in a tax return and amounts recognized in the financial statements is considered uncertain tax benefit (UTB) or the FIN 48 tax reserve. FIN 48 rules require that firms disclose their UTB balances and a reconciliation of the changes in those balances.

Koester (2012) and Koester *et al.* (2015) study investor valuation of FIN 48 reserves. Koester (2012) finds a positive relation between firm value and FIN 48 reserves while Koester *et al.* (2015) confirm the positive relation but show that it is attenuated for firms that report tax-related material weaknesses in their internal controls. Koester (2012) argues that investors would positively value FIN 48 reserves as (1) such reserves represent past and current-period tax avoidance, (2) the reserves may signal future tax avoidance, and (3) investors may value the ability of managers who preserve the resources of the firm. In addition, Wilson (2009) and Robinson and Schmidt (2013) find that investors value tax avoidance activities. These arguments and empirical evidence suggest that to the extent that investors perceive FIN 48 reserves as representing tax avoidance activities and thus as enhancing firm value, auditors also likely take into account the value enhancing potential of FIN 48 reserves when assessing the financial health of the client.

Robinson *et al.* (2015) find that FIN 48 reserves are significantly overstated. Specifically, they report that FIN 48 reserves overstate future cash payments by 76 cents to a dollar over the subsequent three years (i.e., only 24 cents of every dollar of reserve unwind via settlements) and 66 cents to a dollar beyond three years. Robinson *et al.* (2017) also support this evidence by noting several reasons why firms may book greater reserves than they need. Koester *et al.* (2015) argue that this evidence suggests UTB balances are, on average, a reliable indicator of firms’ past and current-period tax avoidance activities. To the extent auditors view the FIN 48 reserves as tax avoidance indicators and thus beneficial to the firm, they may appropriately adjust their evaluation of reserves as enhancing firm value in considering the financial position of the client.

To summarize, the investor valuation literature finds that the reserves are valued positively. In addition, evidence also points to significant overstatement of such reserves indicating that most of the reserve is not likely to result in a cash outflow. These findings suggest that how auditors view FIN 48 reserves in evaluating the going concern status of the firm is an empirical question leading to the first hypothesis (stated in null form):

Hypothesis 1: There is no association between going concern opinions and FIN 48 reserves.

METHODOLOGY

To test the hypothesis about the association between FIN 48 reserves and auditors' going concern opinions, the following logistic model based on the variables adapted from DeFond and Zhang (2014) is used:

$$\begin{aligned} FIRSTGC_{it} = & \beta_0 + \beta_1 LUTB_{it} + \beta_2 LAT_{it} + \beta_3 LEV_{it} + \beta_4 CHLEV_{it} + \beta_5 BIG4_{it} \\ & + \beta_6 ZSCORE_{it} + \beta_7 OCF_{it} + \beta_8 BM_{it} + \beta_9 LIQUID_{it} + \beta_{10} RET_{it} \\ & + \beta_{11} GROWTH_{it} + \beta_{12} INVEST_{it} + \beta_{13} NEWFIN_{it} + \\ & \beta_{14} LLOSS_{it} + Year\ fixed\ effects + Industry\ fixed\ effects + e \end{aligned} \quad (1)$$

FIRSTGC is an indicator variable equal to 1 for clients receiving a going concern opinion for the first time, and 0 otherwise. *LUTB* is the log of uncertain tax benefit (FIN 48 reserve balance) and is the variable of interest. Based on the hypothesis development, no prediction is offered on the expected sign on *LUTB*. The expected signs on the control variables are based on prior literature. As large firms have more resources and are more likely to avoid financial difficulties, the sign on *LAT*, the log of total assets, is expected to be negative. *LEV* is the ratio of total liabilities to total assets and *CHLEV* represents change in *LEV* during the year. As these variables reflect proximity to debt covenant violations which are associated with going concern opinions, the expected signs on *LEV* and *CHLEV* are positive (Mutchler *et al.*, 1997). *BIG4* is an indicator variable that equals 1 if the firm's auditor is a Big N auditor and 0 otherwise; the expected sign on this variable is positive based on Mutchler *et al.* (1997) who argue that Big N auditors are more likely to give going concern opinions. *ZSCORE* represents Zmijewski's (1984) bankruptcy score. As higher values in the score indicate higher probability of bankruptcy, the expected sign on the variable is positive. The Zmijewski measure does not include a cash flow variable, and thus *OCF* representing operating cash flows scaled by total assets, is included in the model. As higher cash flows are an indicator of financial strength, the expected sign on the variable is negative. The expected sign on *BM*, the book to market ratio, is negative as firms with low book to market ratios are riskier high growth firms and are thus more likely to fail in contrast to high book to market firms. *LIQUID* is the ratio of current assets to current liabilities, and the expected sign on *LIQUID* is negative as low liquidity indicates financial trouble. Higher the compounded stock return of the firm, *RET*, lower the probability of a going concern opinion and thus a negative sign is expected on *RET*. *GROWTH* is year over year growth in sales, and is expected to be negative as financially distressed firms likely are not growing. *INVEST* is cash, cash equivalents, and short- and long-term investment securities deflated by total assets, and is expected to have a negative sign as firms with higher cash can avoid financial difficulties for longer periods of time. *NEWFIN* is an indicator variable that equals 1 if long-term debt or stock was issued in the following year, and 0 otherwise. It is expected to have a negative sign as this reduces the probability of bankruptcy (Mutchler *et al.*, 1997). *LLOSS* is an indicator variable that equals 1 if the return on assets (ROA) in the prior period is negative and 0 otherwise. Based on Defond *et al.* (2016) the sign on this variable is expected to be positive.

DATA AND RESULTS

Sample

Prior literature on auditor going concern opinions generally use financially distressed firms as the sample to estimate the going concern model. Defond *et al.* (2016) define financially distressed firms as firms that report either negative net income or negative operating cash flows. This definition is used in this study and the sample is collected from *COMPUSTAT* over the period 2007-16.² The sample begins from the year 2007 as FIN 48 data is available for most firms from that year. Audit-related information are collected from Audit Analytics. The intersection of *COMPUSTAT*, Segment data, and Audit Analytics data over the period 2007-16 requiring availability of data for all variables in Model 1 results in 57,667 observations. Consistent with prior research, firms in the financial sector (SIC codes 60-69) and utility sector (SIC codes 4900-4949) are removed. This reduces the sample to 43,338 observations. All continuous variables are winsorized at the top and bottom one percent in line with prior literature. Finally, imposing the financial distress condition (income or operating cash flows are negative) results in 20,433 observations. The sample period includes the Great Recession of 2007-10. The sensitivity of the empirical results to this inclusion are addressed later in the study.

Table 1 Panel A provides industry distribution of the sample by one digit SIC code. One digit SIC codes 2 (in particular, pharmaceuticals and biological products) and 3 (in particular, semiconductors and instruments) are significantly represented in the sample. Panel B provides the distribution of the sample by year, and the distribution is even across years with most years contributing between 9 and 11% of the overall sample. Last column of Panel B displays the sample as a proportion of all *COMPUSTAT* firms. The proportion of firms that report either losses or negative cash flow from operations is greater than 40% in most years consistent with prior research on loss firms.

Table 1
Panel A: Sample Industry Distribution

1-digit SIC code	Number of Firm-year Observations	%
0	83	0.41
1	2825	13.83
2	5161	25.26
3	5405	26.45
4	1321	6.47
5	1210	5.92
7	3219	15.75
8	798	3.90
9	411	2.01
	20433	100.00

² Data for 2016 is for partial year at the time of estimation of the model.

Table 1 (continued)
Panel B: Sample Year Distribution

Year	Number of Firm-year Observations	Firm-year observations as a % of total sample	Firm-year observations as a % of all COMPUSTAT Firms for that year*
2007	2261	11.07	45.18
2008	2400	11.75	50.82
2009	2255	11.04	49.10
2010	1915	9.37	42.60
2011	1894	9.27	42.80
2012	2095	10.25	46.64
2013	2263	11.08	48.98
2014	2259	11.06	49.40
2015	2220	10.86	51.65
2016	871	4.25	40.87
Total	20433	100.00	

*All COMPUSTAT firms in the U.S. excluding SIC codes 4900 to 4949 and 6000 to 6999.

Descriptive Statistics

Table 2 provides descriptive statistics and variable descriptions for the key variables in Model 1 for all the sample firms. Variable *FIRSTGC*, an indicator variable equal to 1 for clients receiving a going concern opinion for the first time, has a mean value of 8.5% indicating the proportion of loss firms that receive a first time going concern opinion. This is comparable to other papers on going concern opinions (DeFond *et al.* (2016) report 8% for one of their samples). The main variable of interest in the study, *LUTB* has a mean value of 0.389 and a median value of 0, indicating that majority of the firms do not report a reserve.³ The distributions of the size variable, *LAT*, and the leverage variable, *LEV*, are similar to prior studies on going concern opinions.

Among the other variables reported in Table 2, some of the notable descriptive statistics are: *BIG4* has a mean value of 0.493 indicating that only about half of the sample firms are audited by a BIG N auditor, in contrast to the population of COMPUSTAT firms where the proportion is much higher as reported in prior literature; the *RET* variable that measures the compounded stock return has a positive mean value but a negative median value as the majority of the sample firms have negative stock returns; the mean value of the *GROWTH* variable is negative given that the sample consists of financially distressed firms; similarly the *LLOSS* variable that indicates whether the firm reported a loss in the prior year has a mean value of 0.733 implying that most of the sample firms have been reporting losses consistent with the sample selection based on financial distress.

³ Donohoe and Knechel (2014) note that COMPUSTAT reports some FIN 48 reserves as missing even though the company's filings report some reserves. This shortcoming is considered in the sensitivity analysis.

Table 2
Descriptive Statistics

Variable	Mean	Standard Deviation	25%	Median	75%
<i>FIRSTGC</i>	0.085	0.279	0.000	0.000	0.000
<i>LUTB</i>	0.389	1.329	0.000	0.000	0.420
<i>LAT</i>	4.276	2.612	2.613	4.309	5.996
<i>LEV</i>	0.793	1.054	0.273	0.531	0.843
<i>BIG4</i>	0.493	0.499	0.000	0.000	1.000
<i>ZSCORE</i>	2.689	10.147	-1.956	0.324	2.192
<i>OCF</i>	-0.293	0.787	-0.311	-0.049	0.036
<i>BM</i>	-1.850	6.615	-0.029	0.273	0.778
<i>LIQUID</i>	3.582	5.493	0.935	1.821	3.654
<i>RET</i>	0.141	1.781	-0.674	-0.282	0.185
<i>GROWTH</i>	-0.158	0.576	-0.696	-0.043	0.181
<i>INVEST</i>	0.301	0.303	-0.005	0.179	0.500
<i>NEWFIN</i>	0.838	0.368	1.000	1.000	1.000
<i>LLOSS</i>	0.733	0.442	0.000	1.000	1.000
<i>APTR</i>	0.263	0.444	0.000	0.000	1.000
<i>TMW</i>	0.019	0.138	0.000	0.000	0.000
<i>MA</i>	0.513	0.279	0.300	0.500	0.700

Total number of observations equals 20433 (except for the managerial ability sub-sample).

Variables are defined as follows:

- FIRSTGC* = 1 for clients receiving a going concern opinion for the first time, and 0 otherwise;
LUTB = Log of FIN 48 tax reserve (unrecognized tax benefits);
LAT = Log of total assets;
LEV = Total liabilities over total assets;
BIG4 = 1 if the firm's auditor is a Big N auditor, and 0 otherwise;
ZSCORE = Zmijewski's (1984) bankruptcy score;
OCF = Operating cash flows deflated by total assets;
BM = Book-to-market ratio;
LIQUID = Current assets divided by current liabilities;
RET = Compounded stock return over the fiscal year;
GROWTH = Year over year growth in sales;
INVEST = Cash, cash equivalents, and short- and long-term investment securities deflated by total assets;
NEWFIN = 1 if long-term debt or stock issued in the following year, and 0 otherwise;
LLOSS = 1 if ROA is negative in the prior year, and 0 otherwise;
APTR = 1 if the proportion to fees received from tax services to audit fees is > 10%, and 0 otherwise;
TMW = 1 if the firm reports a tax related material weakness, and 0 otherwise;
MA = the decile rank (by industry and year) of managerial ability score developed by Demerjian *et al.* (2012).

Table 3
Pearson Correlations for Key Variables

	<i>FIRST_{GC}</i>	<i>LUTB</i>	<i>LAT</i>	<i>LEV</i>	<i>BIG4</i>	<i>ZSCORE</i>	<i>OCF</i>	<i>BM</i>	<i>LIQUID</i>	<i>RET</i>	<i>GROWTH</i>	<i>INVEST</i>	<i>NEWFIN</i>	<i>LLOS</i>	<i>CHLEV</i>
<i>FIRST_{GC}</i>	1.000														
<i>LUTB</i>	-0.071	1.000													
<i>LAT</i>	-0.196	0.401	1.000												
<i>LEV</i>	0.113	0.082	-0.042	1.000											
<i>BIG4</i>	-0.119	0.293	0.626	-0.049	1.000										
<i>ZSCORE</i>	0.210	-0.015	-0.333	0.780	-0.169	1.000									
<i>OCF</i>	-0.183	0.208	0.632	-0.025	0.295	-0.355	1.000								
<i>BM</i>	-0.119	0.029	0.242	-0.457	0.051	-0.502	0.291	1.000							
<i>LIQUID</i>	-0.168	0.028	0.145	-0.709	0.206	-0.571	-0.026	0.281	1.000						
<i>RET</i>	-0.195	0.036	0.071	-0.120	0.002	-0.172	0.098	0.103	0.117	1.000					
<i>GROWTH</i>	-0.150	0.052	0.187	0.080	0.081	-0.028	0.168	0.011	-0.043	0.081	1.000				
<i>INVEST</i>	-0.022	-0.038	-0.232	-0.319	0.073	-0.081	-0.381	-0.109	0.561	0.047	-0.084	1.000			
<i>NEWFIN</i>	-0.048	0.069	0.183	0.012	0.158	0.026	-0.011	-0.056	0.041	0.026	0.123	0.019	1.000		
<i>LLOSS</i>	0.052	0.029	-0.056	0.074	0.032	0.248	0.024	-0.155	-0.033	0.078	0.064	0.163	0.007	1.000	
<i>CHLEV</i>	0.159	-0.025	-0.089	0.475	-0.048	0.464	-0.083	-0.182	-0.355	-0.130	0.001	-0.134	-0.057	0.014	1.000

Bolded values indicate two-tailed significance at the 0.05 level. See Table 2 for variable definitions.

Table 3 reports Pearson correlation coefficients for the variables in Model 1. The main variable of interest *LUTB*, is significantly correlated (at the 5% level) with the independent variable *FIRSTGC*. Some notable high correlations include the correlations between *BIG4* and size (*LAT*), between *ZSCORE* and *LEV*, and between *LIQUID* and *LEV*. By construction, the *ZSCORE* correlations are high (as leverage and profitability are two of the key components of *ZSCORE*) and *BIG4* is highly correlated with size as shown in the prior literature. The correlation between *LIQUID* and *LEV* is also high based on the construction of the variables reflecting high proportion of current assets and liabilities, respectively. Prior literature (Defond *et al.*, 2016) on going concern models use these variables and do not find such correlations to significantly affect the results.

Main Results

The findings from estimating Model 1 are reported in Table 4. A Logistic model is used as the dependent variable is binary, consistent with prior literature. The primary variable of interest *LUTB*, is negative and significant. This indicates that the higher the value of FIN 48 reserve, the lower the probability of a going concern opinion, keeping other controls constant. One interpretation of this result is that it is consistent with the Koester *et al.* (2015) explanation: FIN 48 reserves represent past and present tax avoidance and are signals of future tax avoidance – to the extent that auditors assess these tax avoidance activities to be value enhancing, their assessment of the going concern status of the firm is improved. This result is also consistent with the evidence in Robinson *et al.* (2015) that a significant portion of the reserve never results in a cash outflow. While some of the strategies underlying the FIN 48 reserves may be risky or uncertain (Donohoe and Knechel, 2014), it appears that across the sample of firms, the beneficial effects outweigh the concerns over riskiness of the tax avoidance strategies or the potential for managerial manipulation of reserves. Apart from *LUTB*, most of the determinants of going concern opinion noted in the prior literature are significant and have the expected signs with minor exceptions.⁴ *BIG4* representing Big N auditor is not significant in Table 4. While some prior studies that include firms that report profits and losses find significance for the *BIG4* variable, others employing different sample criteria such as severely financially distressed firms (DeFond *et al.*, 2016; Krishnan and Wang, 2015) do not.

ADDITIONAL ANALYSES

To explore the contextual nature of the association between FIN 48 reserves and going concern opinions, a variety of additional analyses are conducted next. These analyses are motivated by prior literature and they look at auditor-provided tax services, tax-related material weaknesses, and managerial ability.

⁴ While the *LEV* variable is negative, the change in leverage variable, *CHLEV* is positive and significant. Some of the leverage variables are found to be negative or insignificant in other studies too (DeFond *et al.* (2016) also report a negative sign on *LEV*).

Table 4
Logistic Regression of Going Concern Opinion Model

Variables	Predicted Sign	Coefficient (Wald Statistic)
Intercept	?	-1.673 (78.58) ^a
<i>LUTB</i>	?	-0.059 (4.02) ^b
<i>LAT</i>	-	-0.207 (149.08) ^a
<i>LEV</i>	+	-0.486 (85.29) ^a
<i>CHLEV</i>	+	0.587 (123.69) ^a
<i>BIG4</i>	+	-0.023 (1.58)
<i>ZSCORE</i>	+	0.011 (4.05) ^b
<i>OCF</i>	-	-0.017 (0.22)
<i>BM</i>	-	-0.035 (85.31) ^a
<i>LIQUID</i>	-	-0.066 (63.24) ^a
<i>RET</i>	-	-0.162 (46.99) ^a
<i>GROWTH</i>	-	-0.661 (183.52) ^a
<i>INVEST</i>	-	-0.502 (20.78) ^a
<i>NEWFIN</i>	-	-0.020 (0.09)
<i>LLOSS</i>	+	0.588 (14.88) ^a
Pseudo R ² %		15.10
% Concordant		78.2
N		20433

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. Variable definitions are in Table 2.

Auditor-provided Tax Services

There is conflicting evidence about the relationship between nonaudit services and auditor independence and audit quality. While early research argued the potential for compromise of auditor independence and thus lower audit quality in the presence of nonaudit services, others find that there are benefits such as knowledge spillovers to having a single auditor perform both audit and some nonaudit services (Ashbaugh *et al.*, 2003; Kinney *et al.*, 2004). Such mixed evidence raises the issue whether the auditor's assessment of FIN 48 reserves is modified in the presence of nonaudit services, specifically auditor-provided tax services, and lead to a higher likelihood (based on knowledge spillover) or a lower likelihood (based on compromise of auditor independence) of going concern opinions.

To examine this issue empirically in the current study, Model 1 is modified to include an indicator variable, *APTR*, for auditor-provided tax services, that takes the value of 1 if the proportion of fees received from tax services to audit fees is > 10%, and 0 otherwise. *APTR* is interacted with the variable of interest *LUTB*. These results are reported in Table 5.

Table 5
Going Concern Opinion Model with Auditor-Provided Tax Services

Variables	Predicted Sign	Coefficient (Wald Statistic)
Intercept	?	-1.678 (73.07) ^a
<i>LUTB</i>	?	-0.062 (4.33) ^b
<i>LUTB*APTR</i>	?	0.012 (0.04)
<i>APTR</i>	-	-0.278 (16.81) ^a
<i>LAT</i>	-	-0.203 (144.09) ^a
<i>LEV</i>	+	-0.487 (85.35) ^a
<i>CHLEV</i>	+	0.588 (124.51) ^a
<i>BIG4</i>	+	-0.019 (1.87)
<i>ZSCORE</i>	+	0.011 (3.94) ^b
<i>OCF</i>	-	-0.018 (0.24)
<i>BM</i>	-	-0.034 (82.89) ^a
<i>LIQUID</i>	-	-0.065 (62.65) ^a
<i>RET</i>	-	-0.163 (47.58) ^a
<i>GROWTH</i>	-	-0.657 (181.2) ^a
<i>INVEST</i>	-	-0.494 (20.18) ^a
<i>NEWFIN</i>	-	-0.015 (0.05)
<i>LLOSS</i>	+	0.582 (14.56) ^a
Pseudo R ² %		15.16
% Concordant		78.3
N		20433

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. Variable definitions are in Table 2.

APTR has a mean value of 0.263 (see Table 2) indicating that about a quarter of the firms use auditor-provided tax services where the proportion of fees for tax services exceeds 10% of audit fees. Results in Table 5 show that *APTR* is negative and significant indicating that the probability of going concern opinion is lower for firms that use auditor-provided tax services. The interaction variable *LUTB*APTR* is not significant while *LUTB* is negative and significant as before. The insignificance of the interaction variable indicates that auditors do not modify their assessment of FIN 48 reserves if a firm uses auditor-provided tax services. These results do not clearly yield a characterization supporting either knowledge spillover or compromised auditor independence. Finally, note that non-audit services may differ significantly based on audit firm size. To address this, the FIN 48 and auditor provided tax services variable is also interacted with *BIG4*. This interaction is also found to be insignificant.

Tax-related Material Weaknesses

Section 404 of the Sarbanes-Oxley Act of 2002 requires most public firms and auditors to report on the effectiveness of firms' internal controls over financial reporting. A number of studies (Doyle *et al.*, 2007; Ashbaugh-Skaife *et al.*, 2009) find that material weaknesses in internal controls are associated with lower-quality information. This would suggest that a tax-related material weakness in internal controls potentially indicates that tax-related accounts such as UTB account balances may be unreliable. Specifically, UTB balances may be an unreliable indicator of uncertain tax avoidance pertaining to past and present and a poor signal of future tax avoidance. In line with this, Koester *et al.* (2015) find that while there is a positive relationship between firm value and unrecognized tax benefits, this relationship is attenuated in the presence of tax-related material weaknesses.

To address whether tax-related material weaknesses modify the auditors' assessment of FIN 48 reserves, Model 1 is modified to include an indicator variable, *TMW*, which takes the value of 1 if the firm reported a tax-related material weakness and 0 otherwise. The indicator variable is interacted with *LUTB*. The results of estimating this model are reported in Table 6.

Table 6
Going Concern Opinion Model with Tax related Material Weaknesses

Variables	Predicted Sign	Coefficient (Wald Statistic)
Intercept	?	-1.681 (79.33) ^a
<i>LUTB</i>	?	-0.072 (3.97) ^b
<i>LUTB*TMW</i>	?	0.218 (3.90) ^b
<i>TMW</i>	+	0.313 (2.98) ^c
<i>LAT</i>	-	-0.207 (150.04) ^a
<i>LEV</i>	+	-0.487 (85.45) ^a
<i>CHLEV</i>	+	0.588 (123.91) ^a
<i>BIG4</i>	+	-0.021 (1.89)
<i>ZSCORE</i>	+	0.011 (3.97) ^b
<i>OCF</i>	-	-0.018 (0.24)
<i>BM</i>	-	-0.035 (86.41) ^a
<i>LIQUID</i>	-	-0.065 (62.97) ^a
<i>RET</i>	-	-0.162 (46.66) ^a
<i>GROWTH</i>	-	-0.661 (183.37) ^a
<i>INVEST</i>	-	-0.499 (20.51) ^a
<i>NEWFIN</i>	-	0.021 (0.15)
<i>LLOSS</i>	+	0.590 (14.96) ^a
Pseudo R ² %		15.15
% Concordant		78.3
N		20433

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. Variable definitions are in Table 2.

The tax-related material weakness variable, *TMW*, has a mean value of 0.019 (Table 2) indicating that only about 2% of the firms report such material weaknesses. The results in Table 6 show that the *TMW* variable is positive and significant indicating that reporting such material weaknesses increase the probability of a going concern opinion. The tax reserve variable, *LUTB*, is negative and significant while the interaction variable, *LUTB*TMW*, is positive and significant supporting the argument that auditors modify their assessment of FIN 48 reserves when a firm reports tax-related material weaknesses.

Managerial Ability

One of the key arguments for why FIN 48 reserves may enhance firm value is the ability of managers to serve as good stewards of firm resources. Given that prior literature argues that auditors will take into account client characteristics in rendering opinions and that Krishnan and Wang (2015) find that going concern opinions are negatively related to managerial ability, it is likely that auditors when considering the role of FIN 48 reserves in their assessment of going concern status, condition their response based on the managerial ability of the client firm.

The managerial ability score developed by Demerjian *et al.* (2012) is used to test whether the FIN 48 reserves is likely to be significant for firms with high managerial ability.⁵ Table 7 presents the results for Model 1 that includes an indicator variable for high managerial ability score, *HMA*, and its interaction with the main variable of interest *LUTB*HMA*.⁶ *HMA* is a dummy variable that equals 1 if *MA* is greater than 0.7, and is 0 otherwise. The indicator variable approach is used to facilitate interpretation of the coefficients.

Results in Table 7 show that *HMA*, the indicator variable representing high managerial ability, is negative and significant. This indicates that the probability of going concern opinions is lower for firms with high managerial ability which is consistent with Krishnan and Wang (2015). The interaction variable, *LUTB*HMA* is negative and significant while the main variable *LUTB* (representing firms that do not have high managerial ability) is not significant. The combined coefficient on *LUTB* and *LUTB*HMA* is negative and significant (not reported). These results indicate that FIN 48 reserves are associated with a lower probability of going concern opinions only for firms with high managerial ability.

⁵ The study is indebted to Peter Demerjian for allowing the use of managerial ability data available at <http://faculty.washington.edu/pdemerj/data.html>.

⁶ The number of observations is less in Table 7 compared to other tables with the going concern model because of lack of availability of managerial ability data for some firms.

Table 7
Going Concern Opinion Model with Managerial Ability

Variables	Predicted Sign	Coefficient (Wald Statistic)
Intercept	?	-1.516 (24.65) ^a
<i>LUTB</i>	?	-0.050 (1.33)
<i>LUTB*HMA</i>	?	-0.114 (2.96) ^c
<i>HMA</i>	+	-0.329 (11.25) ^a
<i>LAT</i>	-	-0.175 (43.94) ^a
<i>LEV</i>	+	-0.518 (32.45) ^a
<i>CHLEV</i>	+	0.327 (14.66) ^a
<i>BIG4</i>	+	0.024 (0.65)
<i>ZSCORE</i>	+	0.020 (3.92) ^b
<i>OCF</i>	-	-0.183 (6.24) ^a
<i>BM</i>	-	-0.033 (32.35) ^a
<i>LIQUID</i>	-	-0.300 (80.10) ^a
<i>RET</i>	-	-0.164 (17.47) ^a
<i>GROWTH</i>	-	-0.560 (41.82) ^a
<i>INVEST</i>	-	-0.169 (0.61)
<i>NEWFIN</i>	-	-0.143 (2.14)
<i>LLOSS</i>	+	0.690 (9.46) ^a
Pseudo R ² %		12.5
% Concordant		78.4
N		14490

^a, ^b, and ^c indicate two-tailed significance at the 0.01, 0.05, and 0.10 levels respectively. Logistic regression is run clustered by firm. For each variable, the logistic regression coefficient is reported, followed by the robust Wald statistic. Industry and year dummies are included (results not tabulated). Industry-dummy variables are based on eleven Fama-French industries other than money and finance. The dependent variable is *FIRSTGC*. *HMA* is a dummy variable that equals 1 if *MA* is greater than 0.7, and is 0 otherwise. Variable definitions are in Table 2.

Sensitivity Analyses

In this section, a variety of sensitivity analyses are conducted to address potential concerns with the findings and potential alternative explanations.

Errors in COMPUSTAT FIN 48 data. Following Lisowsky *et al.* (2013), Donohoe and Knechel (2014) find that *COMPUSTAT* reports the reserve information as missing for some firms even though the 10-K statements report a reserve. To assess the extent of this problem, Lisowsky *et al.* (2013) hand-collect the FIN 48 reserve information for a sample of firms and report a high correlation of 0.86 between tax reserves reported in *COMPUSTAT* and the hand-collected sample. This provides some assurance that the analysis conducted by using the *COMPUSTAT* data is not likely to be of significant concern. However, to make sure that the findings are not solely driven by any incorrect reporting, following Donohoe and Knechel (2014), the analysis is modified by removing all firms with a reported reserve value of 0 in *COMPUSTAT*. These results (with a reduced sample of 16,632) also show that the reserve is negative and significant (results not tabulated).

Conservatism as a correlated omitted variable. Conservatism in financial reporting may affect the amount of FIN 48 reserves as some managers may create abnormally large reserves. This possibility exists as there is discretion in estimating the reserves and significant cross-sectional variation exists in the amount of reserves as documented by De Simone *et al.* (2014). If conservatism is the reason behind the size of the reserves, auditors could be considering conservatism as the mitigating factor in going concern opinion rather than the tax avoidance reflected in the reserves. To address the issue whether conservatism could be an explanation for the findings in this study, following Koester *et al.* (2015), an unconditional conservatism measure is developed and included in the going concern opinion model. The unconditional conservatism measure is based on Easton and Pae (2004). After controlling for this conservatism measure, the FIN 48 variable, *LUTB*, continues to be negative and significant.

Potential endogeneity. As FIN 48 reserves are a financial statement item, they are subject to audit. As part of the audit, it is possible that auditors may challenge and accordingly, the client may change the estimate of the reserve. If that is the case, a potential endogeneity issue exists in estimating the effect of FIN 48 reserves on going concern opinions. In order to address this issue, the change in the reserve rather than the balance in the reserve is used in estimating the going concern opinion model. In this specification, the change in reserve is negative and significant at the 5% level (results not tabulated). While this result does not completely rule out the existence of endogeneity, it provides some assurance that the results may not be driven solely by it.⁷

Exclusion of recessionary period in sample. Currently the sample includes the years 2007-10 that was characterized by the Great Recession and a significant increase in regulatory scrutiny. Potentially, the severe economic conditions and change in regulatory response may bias the results of this study. To address this issue, the model is estimated by excluding the period 2007-10. The results for this reduced sample show that the FIN 48 reserve variable is negative and significant as in the full sample (results not tabulated).

SUMMARY

Conclusion

FIN 48 requires firms to establish and disclose reserves for cash tax savings during the current period that could be denied if successfully challenged by the tax authorities. The results of this study indicate that auditors consider the FIN 48 reserves as reducing the probability of a going concern opinion. This evidence is consistent with prior research that finds investors consider FIN 48 reserves to reflect tax avoidance strategies and thus value enhancing to the firm and also the finding by prior research that most of the reserves do not result in cash outflows. The findings of the study are contextual

⁷ Another approach to address the endogeneity issue would be to estimate a model of determinants of FIN 48 reserves and then use a second stage estimation where the predicted value from the first stage estimation is used in the going concern model, instead of the FIN 48 reserve. The lack of an established model for determinants of FIN 48 reserves makes this procedure difficult to implement. Goldman *et al.* (2018) note that R&D tax credits comprise a significant portion of FIN 48 reserves. Using the R&D expense as an instrumental variable for FIN 48 reserve, the going concern model is re-estimated and this specification also finds the FIN 48 reserve variable to be significant.

however; when client firms report tax-related material weaknesses or have managements with low managerial ability, FIN 48 reserves do not reduce the probability of the going concern opinion. These results further the understanding of how auditors assess FIN 48 reserves in their decision-making, and whether auditors' assessment is contextual on firm specific factors and managerial characteristics. The evidence is of interest to regulators who want to assess the impact of accounting regulation, to investors who are interested in how auditors assess client financial health, and to academic researchers studying the impact of FIN 48 rules.

Limitations

While FIN 48 applies to all firms with uncertain tax positions, this study considers going concern opinions only for a sample of financially distressed firms and excludes financial and utility firms. This limits the generalizability of the findings to firms to the broader population of firms.

To address potential endogeneity the study uses the changes in FIN 48 reserve instead of the level of the reserve. This procedure does not account for the fact that the changes to reserves made on the advice of auditors are not observable and thus endogeneity concerns cannot be completely ruled out.

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The Dark Side of Power in Innovation Adoption

Somnath Banerjee
Assistant Professor, Marketing
North Dakota State University
s.banerjee@ndsu.edu

Rajani Ganesh Pillai
Associate Professor, Marketing
North Dakota State University
rajani.pillai@ndsu.edu

Joseph M. Jones
Associate Professor, Marketing
North Dakota State University
joseph.jones@ndsu.edu

Kuo-Ting Hung
*Chair and Professor, Information Systems and
Operations Management Department*
Suffolk University
khung@suffolk.edu

Chanchai Tangpong
Chair and Professor, Management and Marketing Department
North Dakota State University
Charnchai.Tangpong@ndsu.edu

*“Small businesses are nimble and bold and can often teach much larger companies a thing
or two about innovations that can change entire industries.”*

– Richard Branson, Founder of Virgin Group (Sponseller, 2015).

Power in business exchanges has long been a topic of interest and relevance among strategy scholars and business practitioners. Porter's (1979) five forces model suggests that a more powerful position in business-to-business transactions results in greater competitive advantage and profitability. Greater power is thus considered to be desirable, and firms expend significant resources to acquire power in business transactions. Strategy literature also recognizes the important role of innovation and its effect on firms' competitive advantage and long-term viability (Schumpeter, 1942; Geroski *et al.*, 1993; Gunday *et al.*, 2011). Consequently, numerous firms spend a considerable amount of resources on creating innovations. For example, on an average, large companies spend 15% of their revenue on research and development (R&D) (Statistica, 2017). More powerful firms tend to invest in innovation with greater resources committed to R&D, and are more likely to gain competitive advantage and appropriate the returns from their investments, owing to their more powerful positions in business transactions (Schumpeter, 1942; Vossen, 1998).

An examination of innovation by businesses reveals that powerful companies like Amazon, Google, Microsoft, and Novartis are some of the largest spenders on innovation (Casey and Hackett, 2014). However, smaller firms are sometimes more innovative and more open to different sources of innovations than their bigger counterparts (Degraff, 2013; Hogg, 2011; Mazzeo *et al.*, 2014; Sponseller, 2015; Vossen, 1998). Similarly, research shows that family businesses, which are smaller by nature, are often more innovative than publicly-owned larger companies (Duran *et al.*, 2016). Therefore, extant literature points to conflicting findings regarding the relationship between power and innovation. On the one hand, the findings (e.g., Porter, 1979, Schumpeter, 1942) suggest that larger firms, which are often more powerful in bilateral negotiations (Chipty and Snyder, 1999, Draganska *et al.*, 2010), are more likely to invest in innovation because they have more resources to invest and the ability to extract surplus from innovation. On the other hand, research also shows that smaller firms that are less powerful are also likely to invest in innovation (Sponseller, 2015; Vossen, 1998). This study attempts to address this apparent conflict between power and innovation adoption. In this study, it is hypothesized that power may have a negative effect on innovation adoption decisions, due potentially to cognitive biases associated with power. As a result, powerful firms may close themselves from innovative opportunities presented to them.

Consider the following case-in-point illustration regarding the relationship between power and innovation. A decade ago, Blackberry was a leader in mobile phones. However, at that time, the market was moving towards bigger touchscreens and android technology, which Blackberry too could have adopted and offered to its customers. Instead of adopting the new trend in cellular innovation, Blackberry was more concerned about protecting its own technology. Meanwhile, smaller competitors like Samsung, LG, and HTC adopted the technologies and stayed in business for a longer time than Blackberry did (Gustin, 2013; Savov, 2016). In short, business incidents abound (e.g., Blockbuster, etc.) to anecdotally point to the liability of power when it comes to the domain of innovation adoption.

This research focuses on innovation taking place in collaborative relationships between organizations, specifically buyers and suppliers, instead of within organizations. The focus on power in inter-organizational relationships is because current business landscapes are increasingly requiring firms to strategically use inter-organizational

relationships along the value chain to complement their internal core competences (Dyer and Hatch, 2006; Sobrero and Roberts, 2002). It has also been well documented that the sources of ground-breaking innovations often lie outside the boundary of focal firms (e.g., Drucker, 1985), and that buyer-supplier relationships (BSRs) have increasingly played an important role in focal firms' innovations (e.g., Bidault *et al.*, 1998; Eisenhardt and Tabrizi, 1995; Lau *et al.*, 2010; Henke and Zhang, 2010; Ahuja *et al.*, 2013; Yan *et al.*, 2018). As such, this study focuses specifically on examining the difference in power between exchange partners in BSRs to address a research question: "*how does the power differential impact the organization's adoption of innovation offered by its partner in a BSR?*" Further, a boundary condition of the power differential – innovation adoption relationship is hypothesized and is investigated "*whether relational norms between the exchange partners mitigates such negative and biasing effects of power differential.*" Given that (1) power differential is a common phenomenon as business relationships often involve power asymmetry, (2) innovation adoption is an important managerial decision to firm success, and (3) BSRs have become an important source of innovation, the research questions of this study provide strong motivation to pursue them. The theoretical underpinnings for this research come from the established literature in judgment and decision-making, particularly on three related cognitive domains, i.e., status quo bias, endowment effect, and loss avoidance in the prospect theory (e.g., Kahneman and Tversky, 1979; Samuelson and Zeckhauser, 1988).

Results in this study suggest that power differential may indeed have a negative effect on innovation adoption decision, thus providing a plausible explanation for why bigger and more powerful organizations sometimes adopt fewer innovations. However, the results do not support the notion that relational norms can mitigate the innovation-inhibiting effect of power differential. In the next section, the theoretical background and hypotheses development are presented, followed by an experimental study to test the hypotheses. Finally, the findings and their theoretical and managerial implications are discussed.

LITERATURE REVIEW AND THEORY DEVELOPMENT

Power, Innovation, and Cognitive Biases

Bargaining is a process through which individuals and groups try to reach an agreement on trade between themselves. Any exchange situation in which a pair of individuals or organizations can engage in mutually beneficial trade but have conflicting interests over terms of trade is a bargaining situation (e.g., Muthoo, 2002). Power is defined as the ability to control the actions and resources of another individual or group, and is often observed as a relative term with the more powerful party generally having greater control over the less powerful one in a certain context (French and Raven, 1959; Galinsky *et al.*, 2003; Ng and Cram, 1988). Similarly, Keltner *et al.* (2003) define power as relative capacity to modify others' states. Consequently, in a bargaining context, a relatively more powerful individual or group has greater say over terms of trade with the less powerful counterpart, and the more powerful party tends to initiate a variety of competitive interactions to gain bargaining advantages (Magee *et al.*, 2007). The source of power differential may be based on factors like availability of better options outside of what is being offered in the trade or by virtue of one partner being in a position to create more value in the trade. For example, in negotiations between (1) a more

powerful organization (e.g., a more powerful buyer) and (2) a less powerful organization (e.g., a less powerful supplier), the powerful organization has greater say on what type of innovations to collaborate on and whether to adopt an innovation created by the less powerful organization. If the supplier is more powerful (e.g., if the supplier is a monopsony), then it could offer only a more innovative option that would be more profitable. However, if the supplier is less powerful (e.g., if there are many suppliers offering similar products), it will be more likely to follow what the more powerful buyer suggests it do.

Bargaining power in a relationship with a less powerful business partner allows a firm to extract more gains from the exchange relationship (Porter, 1979). More power is also associated with more resources and an ability to invest in R&D and innovation (Schumpeter, 1942; Vossen, 1998), further reinforcing the firm's market power. However, once in a position of power, managers in powerful organizations need to make judgments about adoption of innovations presented to them by their external parties, e.g., buyers and suppliers in BSRs. Because performance of innovations are difficult to predict, considerable personal judgments by decision-makers are needed in making such decisions (Degraff, 2013). Research has also shown that when decision-makers operate under such uncertain and ambiguous conditions, they often fall prey to biases (e.g., Tversky and Kahneman, 1974). Therefore, given the importance of judgment in decisions related to innovation adoption for organizations in more powerful positions, identifying and understanding the biases that may impact consequential decisions is important.

A cognitive bias refers to the systematic pattern of deviation from norm or rationality in judgment, whereby inferences about other people and situations may be drawn in an illogical fashion (Hasselton *et al.*, 2015). Interestingly, perceptions of power differential may lead to cognitive biases. For example, Keltner and Robinson (1997) find that in social settings, partisans who represent relatively higher power tend to bias towards status quo. Relative power also affects social attention in ways that predispose powerful individuals to be more biased judges and less powerful individuals to be less accurately judged (Chance, 1967; Fiske, 1993). Research also shows that powerful individuals are less likely to depend on others for their outcomes (Erber and Fiske, 1984), thus less motivated to carefully attend to the actions and attitudes of others in a less powerful position, and vice versa (Chance, 1967; Fiske, 1993). Evidence from biology also suggests that powerful individuals are less careful in attending to others' actions and attitudes. For example, dominant primates pay less attention to others than do non-dominant ones (Chance, 1967; Emory, 1988). Further, more powerful humans spend less time looking at low-power individuals than the other way around (Ellyson and Dovidio, 1985). High-power individuals are more prone than low-power individuals to stereotype others (Fiske, 1993). Evidences from the negotiation settings reinforce such observations, indicating that the more powerful party tends to put less efforts to reach mutual beneficial outcomes and more often makes snap judgments than the less powerful party (e.g., Keltner *et al.*, 2003; Mannix and Neale, 1993). All these evidences point to the notion that high-power leads to biases in judgments. As such, in the context of adoption of innovation and transactions in business-to-business relationships, it is contended that a relatively more powerful decision-maker may become susceptible particularly to the status-quo decision-making bias.

The status-quo bias often acts in tandem with the endowment effect, which refers to the tendency that people ascribe more value to things merely because they own them (Kahneman *et al.*, 1991). The endowment effect is commonly interpreted as the result of loss aversion, a core ingredient of prospect theory (Kahneman and Tversky, 1979). Losses (outcomes below some reference point) are weighted substantially more than gains (outcomes above the reference point) in the evaluation of choice options (Kahneman and Tversky, 1979). In a series of decision-making experiments, Samuelson and Zeckhauser (1988) found that individuals disproportionately prefer the status quo. Thus, such individuals are likely to prefer the status quo if there is a potential loss of the endowment associated with a change. Maner *et al.* (2007) suggest that relative power serves as a form of goal satisfaction. For example, in Maner *et al.* (2007) some participants were made to believe that they would be serving as leader on the group task, whereas control-group participants believed each member of their group would have equal power. Keltner *et al.* (2003) consider power differential between high and low power individuals and argue that relatively more power often is accompanied by the experience of positive affect (Keltner *et al.*, 2003), which can in turn promote loss aversion, (e.g., Isen *et al.*, 1988; Isen and Patrick, 1983). Such increasing loss aversion associated with high power arguably influences decision-makers in more powerful positions to avoid risky decisions involved with innovation adoption, the outcome of which is less clear and incurs greater potential losses than status-quo preserving decisions of innovation rejection. This line of reasoning is also consistent with research on escalation of managerial commitment to failing projects (Schmidt and Calantone, 2002; Staw, 1981), indicating that managers place greater value on something they have initiated and committed to. In addition, the organizational theory literature has suggested that status-quo preservation is a significant contributor to organizational inertia (e.g., Kelly and Amburgey, 1991), which in turn reduces the likelihood of adopting organizational changes and innovations. Taken together, the above arguments suggest that decision-makers in relatively greater power positions are prone to status-quo biases and more likely to value their endowments with greater fear for potential losses. Therefore, such relatively more powerful position influences the decision-makers and makes it less likely for them to adopt innovations generated from less powerful parties. In the business exchange context of buyer firms' adoption of innovation generated by suppliers in this study, Hypothesis 1 is proposed based on the above arguments.

H1: The relatively more powerful position of an exchange partner, the less likely that the decision-maker at the more powerful partner will adopt innovations proposed by its less powerful partner in a BSR.

Power-Suppressing Effect of Relational Norms

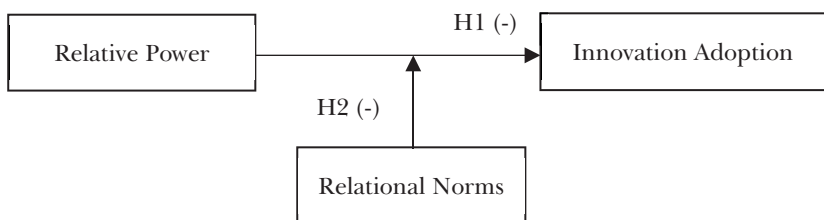
The negative effect of power differential on innovation adoption proposed in the above section may be mitigated if the relational norms between parties in BRSs have been established. Relational norms refer to shared values and expectations between exchange partners about what constitutes appropriate or inappropriate behavior in their relationship (Joshi and Arnold, 1997; Heide and John, 1992; MacNeil, 1980; Morgan and Hunt, 1994). Prior research (Heide and John, 1992; Simpson and Paul, 1994) has focused on bilateral expectations of three types of behaviors—flexibility,

information exchange, and solidarity. A higher relational norm would suggest higher expectation of flexibility, information exchange, and solidarity between partners (Joshi and Arnold, 1997). Flexibility is the willingness of each of the partners, in good faith, to change the original terms of exchange in the event of unanticipated changes. Similarly, stronger relational norms encourage continuous and free-flow information exchange (e.g., Bello *et al.*, 2002; Zhang *et al.*, 2003). In addition, solidarity is the shared expectation that partners will behave in a manner that benefits their collective, thus strengthening cooperative behaviors and long-term orientations (Gundlach and Cadotte, 1994; Heide and John, 1992). High relational norms also motivate firms in exchange relationships to engage in behaviors that result in continuity of the relationship for mutual economic and moral benefits (Joshi and Arnold, 1998).

In the BSR context of firm's adoption of innovation generated by its partner, relational norms arguably play an important role in suppressing the decision biases associated with higher power position. First, relational norms discourage the exercise of power (e.g., Cannon *et al.*, 2000; Kaufmann and Dant, 1992) and improve information exchanges between the buyer firm and its partner (e.g., Bello *et al.*, 2002; Zhang *et al.*, 2003). As a result, the decision-influencing effects of the status quo are to some extent subordinated. Second, with relational norms in place, the firm can expect that its partner will be flexible and willing to change the original exchange terms in face of unpredictable events or uncertain outcomes (Arranz and de Arroyable, 2012), thus reducing potential losses from the firm's endowment. These relationship dynamics typify innovation adoption decisions, and therefore, relational norms potentially can guard against the negative effects of status quo bias and other related biases (i.e., loss avoidance tendency, and endowment effect) in the innovation adoption decisions. Based on this line of reasoning, it is argued that relational norms can reduce the negative impact of power differential on innovation adoption, which is triggered by status-quo bias, endowment effect, and loss avoidance, and therefore, Hypothesis 2 is as follows. The overall conceptual model of this study is graphically presented in Figure I.

H2: The negative effect of a firm's powerful position with respect to its partner in a BSR, on its decision to adopt the innovation proposed by its partner is weakened by relational norms in their relationship.

Figure I
Conceptual Model



RESEARCH METHODS

Experimental Design and Subjects

A scenario-based experiment was conducted with 85 business professionals in MBA courses from two U.S. campuses, one in the Midwest and the other on the East Coast, to test the proposed hypotheses. The sample size of this study was determined using the *a priori* sample size estimate. Based on the 0.20 anticipated effect size, the 0.80 statistical power level, eight predictors in the statistical analysis, and the 0.05 probability level, the estimate sample size of at least 83 would offer adequate statistical power for hypothesis testing in this study. Among the participants, 56.5% of them had at least five years of professional work experience and 94.1% had at least one year of professional experience, with the average professional experience and management experience of 7.5 and 3.0 years, respectively. The participants' management responsibilities ranged from supervisory to executive positions where 54.1% of the subjects had executive, senior-level, or mid-level management experience. In addition, 60.7% were male and 39.3% were female with the average age of 29.0 years, and 81.0% of participants were Caucasian while 29.0% were non-Caucasian.

The validated innovation adoption decision scenario from Hung and Tangpong's (2010) study (see Appendix for the full description of the scenario) was used as the base scenario, and subjects were assigned randomly into four groups based on a 2 x 2 experimental design of low versus high power and low versus high relational norms. The strength of random assignment is that all the groups are assumed to be probabilistically equivalent, allowing the effect of experimental stimuli or manipulation on the dependent variable to be clearly observed (Babbie, 1989). The t-tests and chi-square tests indicate no significant differences among the four groups in terms of participants' demographics, thus supporting the probabilistic equivalence assumption of the random assignment practice.

The power manipulation materials were developed based on the attributes embedded in the operationalization of power by previous research, such as percentage of sales, difficult to replace sales and profits from the other party, and the ability to apply pressure and leverage (Fink *et al.*, 2006; Gassenheimer *et al.*, 2004; Ryu and Eyuboglu, 2007; Sternquist *et al.*, 2002). The relational norms manipulations were utilized in their entirety from Joshi and Arnold's (1998) experimental scenarios. Each participant in the experiment received the same base scenario, taken from Hung and Tangpong's (2010) validated scenario, which was empirically grounded in the actual Boeing 7E7 Dreamliner development. In the scenario, each participant assumed the role of a senior manager of an aircraft component supplier. The participant had to decide whether to accept and adopt an innovative proposal from a buyer firm, an aircraft manufacturer, requesting the supplier to design and produce the body of the fuel efficiency aircraft using a lightweight and durable composite material. The less innovative alternative would be to tweak the current design of the aircraft body instead, which is a less risky and lower return option. Participants were asked to rate their likelihood of accepting the innovative proposal from the buyer. The power and relational norms manipulation materials were then varied depending on which group they were assigned to.

The manipulation checks indicated the manipulations were successful as intended. The manipulation check item for power measured participants' perception that they were in a higher power position than the other party in the scenario (anchored by 1 =

strongly disagree, 7 = strongly agree). The t-test indicated that the average rating on the power manipulation check item of participants in High Power groups was statistically different (mean = 6.09) from that of participants in Low Power groups (mean = 2.83) at $p < 0.001$ level. The relational norm manipulation check item measured participants' feeling that they had an informal, close, cooperative relationship with the other party in the scenario (anchored by 1 = strongly disagree, 7 = strongly agree). The t-test on relational norms manipulation check indicated that the average rating for participants in High Relational Norms group (mean = 5.36) was statistically different from that of subjects in Low Relational Norms group (mean = 2.85) at $p < 0.001$ level.

Measurements and Statistical Models

Dependent Variable: *Innovation Adoption Likelihood.* Participants' innovation adoption likelihood was measured by asking them the likelihood that they would decide to accept the innovation proposal from the other party instead of tweaking the current design. Participants rated the likelihood on a seven-point scale (1 = very unlikely, 7 = very likely).

Independent Variables: *Power and Relational Norms.* The Power and Relational Norms conditions in the experimental scenarios were embedded as manipulations. High and low power conditions were coded as 1 and 0, respectively. Relational norms conditions were also similarly coded.

Control Variables: *Participants' Employment Status, Age, Gender, Ethnicity, and Campus.* Since the main objective of the study was to investigate the effects of power and relational norm on innovation adoption likelihood in a business exchange context, potential spurious effects from other variables including: (a) subjects' employment status (0 for full-time student, 1 for currently employed); (b) age (measured as a continuous variable); (c) gender (female and male coded as 0 and 1, respectively); (d) ethnicity (0 for non-Caucasian, 1 for Caucasian); and (e) campus (0 for Midwest campus, 1 for East Coast campus) are controlled.

Statistical Models: The following regression models were used to test the proposed hypotheses. The models were to examine the main effect of Power, as well as its interaction effect with Relational Norms, on Innovation Adoption Likelihood after accounting for other control variables. The regression models are as follows.

Control Model: $\text{Innovation Adoption Likelihood} = \text{constant} + b_1\text{Employment Status} + b_2\text{Age} + b_3\text{Gender} + b_4\text{Ethnicity} + \text{error}$

Main Effect of Power Model (Model 1 to test H1): $\text{Innovation Adoption Likelihood} = \text{constant} + b_1\text{Power} + b_2\text{Employment Status} + b_3\text{Age} + b_4\text{Gender} + b_5\text{Ethnicity} + \text{error}$

Main Effect of Power Model controlling for Relational Norms (Model 2 to test H1): $\text{Innovation Adoption Likelihood} = \text{constant} + b_1\text{Power} + b_2\text{Relational Norms} + b_3\text{Employment Status} + b_4\text{Age} + b_5\text{Gender} + b_6\text{Ethnicity} + \text{error}$

Full Model (Model 3 to test both H1 and H2): $\text{Innovation Adoption Likelihood} = \text{constant} + b_1\text{Power} + b_2\text{Relational Norms} + b_3(\text{Power} \times \text{Relational Norms}) + b_4\text{Employment Status} + b_5\text{Age} + b_6\text{Gender} + b_7\text{Ethnicity} + \text{error}$

Table 1
Correlation

	Mean	Std.	1	2	3	4	5	6	7	8	9
1. Innovation Adoption Likelihood	3.720	1.757	1.000								
2. Power	0.506	0.503	-0.335**	1.000							
3. Relational Norms	0.518	0.503	0.114	0.035	1.000						
4. Power x Relational Norms	0.271	0.447	-0.083	0.602***	0.588***	1.000					
5. Campus	0.635	0.484	0.115	-0.016	-0.047	-0.034	1.000				
6. Gender	0.607	0.491	-0.006	0.044	0.014	0.057	-0.060	1.000			
7. Ethnicity	0.810	0.395	-0.113	0.012	0.084	-0.042	0.006	0.168	1.000		
8. Employment	0.881	0.326	0.149	0.009	0.165	0.061	0.100	0.081	0.477**	1.000	
9. Age	29.040	7.474	-0.311**	0.166	-0.051	0.027	-0.177	0.225*	0.113	0.117	1.000

p < 0.01, *p < 0.001

DATA ANALYSIS AND RESULTS

Descriptive Statistics and Correlation Matrix

The results of correlation analyses and descriptive statistics are available in Table 1, which indicates some significant associations among the control variables. For example, participants' Ethnicity had significant positive association with Employment ($p < 0.01$), indicating that non-Caucasians were associated with being full-time students among the subjects. Age had significant positive associations with Gender ($p < 0.01$), indicating that the male participants tended to be older. Despite these correlations, Variance Inflation Factor (VIF) did not indicate a problem of multicollinearity.

Hypotheses Testing

Table 2 displays the results of multiple regression analyses with Innovation Adoption Likelihood as the dependent variable. Models 1, 2, and 3 in addition to the control model were used to test the main effect of Power (H1) and its interaction effect with Relational Norms on Innovation Adoption Likelihood (H2). Results of Model 1 indicate that after accounting for the control variables, Power ($p < 0.01$) was negatively related to Innovation Adoption Likelihood. The incremental R^2 for Model 1 over that of the control model was 8.3% and significant ($p < 0.01$). The inclusion of Power improved the total explained variation in Innovation Adoption Likelihood from 17.4% R^2 in the control model to 25.7% R^2 in Model 1. These results therefore support H1 regarding the negative effect of Power on Innovation Adoption Likelihood.

The results of Model 2 indicated that, when Relational Norms were added to the model, Relational Norms was not significantly related to Innovation Adoption Likelihood, while Power was still significantly and negatively associated with Innovation Adoption Likelihood ($p < 0.01$). The incremental R^2 for Model 2 over the Model 1 was not significant. The addition of Relational Norms only improved the total explained variation in Innovation Adoption Likelihood marginally from 25.7% R^2 in Model 1 to 26.4% R^2 in Model 2. The results of Model 3 indicated that, when the interaction term of Power and Relational Norms was added to the model, both the interaction term and Relational Norms were not significantly related to the Innovation Adoption Likelihood. Power's negative association with Innovation Adoption Likelihood remained significant ($p < 0.05$). The incremental R^2 for Model 3 over Model 2 was not significant, with the addition of the interaction only improving the total explained variation in Innovation Adoption Likelihood from 26.4% R^2 in Model 2 to 26.6% R^2 in Model 3. These results do not support H2, regarding the interaction effect of Power and Relational Norm on Innovation Adoption Likelihood.

Table 2
Regression Analysis Results

	DV: Innovation Adoption Likelihood			
	Control Model	Model 1	Model 2	Model 3
	Beta ^a	Beta ^a	Beta ^a	Beta ^a
<i>Control Variables:</i>				
Campus	0.036	0.041	0.048	0.048
Gender	0.085	0.088	0.086	0.083
Ethnicity	-0.227 [†]	-0.228*	-0.229*	-0.221 [†]
Employment	0.284*	0.281*	0.266*	0.265*
Age	-0.329**	-0.281**	-0.272*	-0.269*
<i>Independent Variables:</i>				
Power		-0.292**	-0.296**	-0.339*
Relational Norms			0.087	0.046
Power x Relational Norms				0.072
<i>Model Significance:</i>				
R-Square	0.174	0.257	0.264	0.266
Adjusted R-square	0.121	0.200	0.197	0.188
F Value	3.322**	4.493**	3.948**	3.437**
Incremental R-Square		0.083 ^b	0.007 ^c	0.002 ^d
Incremental F Value		8.724 ^{b**}	0.757 ^c	0.164 ^d

N = 85

^aStandardized Regression Coefficients, ^bCompared to Control Model, ^cCompared to Model 1, ^dCompared to Model 2

[†]p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001

To provide further insight into the relationships of Innovation Adoption Likelihood, Power, and Relational Norms, additional ANOVA tests were performed. Using the 2 x 2 experimental design (low-versus-high) of Power and Relational Norms, they formed four subject groups as shown in Table 3. Further, tests of between-subjects effects as well as the group mean comparisons regarding Innovation Adoption Likelihood were performed, which could also explicate the statistical results more vividly and descriptively. As the results in Table 3 indicated, the overall difference between group means was significant at p < 0.01 with the effect size (Eta Squared) of 0.135, which is a medium-to-large effect size. The results of Tukey Post-Hoc tests indicated that only the mean of Experimental Group 2 (High Power manipulation group; Innovation Adoption Likelihood Mean = 2.75) was significantly lower than that of the Control Group (Innovation Adoption Likelihood Mean = 4.24) at p < 0.05. When the mean of Experiment Group 2 (High Power manipulation) with that of Experimental Group 3 (both High Power and High Relational Norms manipulations; Innovation Adoption

Likelihood Mean = 3.48) were compared, descriptively the likelihood of innovation adoption on average was greater in the group with high relational norms to mitigate the high power condition. However, this mean difference was not statistically significant. Therefore, the ANOVA results are consistent with those of regression analyses in supporting H1 but not supporting H2.

Table 3
Mean Comparison Analysis Results

		Relational Norm Manipulation	
		Low	High
Power Manipulation	Low	Control Group Mean = 4.238 (N = 21)	Experimental Group 1 Mean = 4.381 (N = 21)
	High	Experimental Group 2 Mean = 2.750* (N = 20)	Experimental Group 3 Mean = 3.478 (N = 23)

Overall difference between group means was significant at $p = 0.008$ with the effect size (Eta Squared) of 0.135

*significantly different from the control group at $p = 0.027$ in Tukey Post-Hoc Tests

DISCUSSION

Innovation has long been regarded as the primary driver of organizational success (Drucker, 1985; Schumpeter, 1942; Geroski *et al.*, 1993; Gunday *et al.*, 2011). Innovation adoption has thus become an important managerial decision. The study examines the influence of power differential on buyer firms' decision to adopt innovation generated by their suppliers, and asked: "*how does the power differential impact the organization's adoption of innovation offered by its supplier?*" The experimental results provided a clear and compelling answer to this question as the findings indicate a strong negative effect of buyer firm power on the likelihood that the buyer firm would adopt the innovation generated by its supplier.

A second research question is posed: "*whether relational norms between the organization and its supplier mitigates the negative and biasing effects of power.*" The answer to this question from the experimental results are unfortunately less clear. The findings indicate that, while relational norms descriptively lessen the negative impact of power on innovation adoption decision, such moderating effect is not statistically significant. There are two possible explanations for this finding. First, although the theory is grounded on the established literature (e.g., Kahneman and Tversky, 1979; Samuelson and Zeckhauser, 1988), which suggests that status quo bias, endowment effect, and loss avoidance are three inter-related cognitive processes, it is possible that these three cognitive processes operate differently in the realms of power differential and innovation adoption.

Relational norms might be effective in subordinating some but not all the biases. As such, relational norms, on their own, may not be adequate in curbing power differential from exerting its negative influence on innovation adoption via status quo bias, endowment effect, and loss avoidance, induced by the high-power positions of decision makers. This will be an area that future research could further examine.

Second, it is also possible that there are other cognitive mechanisms associated with power differential, such as halo effect or attention bias (Cooper, 1981) whereby power differential can distort decision makers' initial attention and eventual conclusion. These alternative cognitive mechanisms may operate in parallel with the three cognitive elements, i.e., status quo bias, endowment effect, and loss avoidance that were discussed in the context of innovation adoption decision in this study. Relational norms, because of their nature, may not be adequate in mitigating such alternative cognitive mechanisms in the decision process, and therefore do not have the significant mitigating effect overall. The research design in this study is not set up to address these possibilities, which could be further investigated in future research.

Theoretical Contributions

This study contributes to the extant literature in three important ways. First, it extends the current literature regarding (a) strategy and power and (b) cognitive bias and innovation. The classical strategy literature in the domain of power and its consequences suggests that power enhances competitive advantages and firm profitability (Porter, 1979). This study points to the unintended consequence of power, whereby power can subconsciously influence the power wielder to maintain the status quo and become less likely to embrace innovations. Such decision tendency induced by power could lead to long-term negative outcomes for the firm. As inter-firm relationships are also viewed as a source of competitive advantage, research on relational advantage has become an established research stream in the strategy literature (e.g., Dyer, 1997; Dyer and Hatch, 2006; Emden *et al.*, 2006). Adding to this literature stream, the findings in this study suggest that the liability of power in limiting innovation adoption, despite a strong presence of relational norms, can be a threat to firms' long-term relational advantage.

This study also extends the literature stream on cognitive bias and innovation, which suggests that cognitive biases, such as projection bias and planning fallacy, etc. (Liedtka, 2015), may impact decision-making related to innovation. Similarly, the effect of decision framing (Dorst, 2015) and the escalating commitment tendency (Keil *et al.*, 2007) have recently been examined in the innovation decision context. The study has furthered this research stream by highlighting the role that power differential may potentially play in inducing cognitive biases into innovation adoption decisions.

Second, this study contributes to the relational exchange literature by advancing the understanding of relational norms in the contexts of power and innovation. Research on buyer-supplier relational exchanges has examined the roles of relational norms in various power/dependency and opportunism contexts, particularly on how relational norms constrain the exercise of power and opportunistic behaviors in buyer-supplier relationships (e.g., Paulin and Ferguson, 2010; Tangpong and Ro, 2009). The current study extends this literature stream by examining the roles of relational norms in moderating the negative effect of relative power and innovation adoption. While the results are not significant in supporting such moderating effect of relational norms, they

highlight the domain where relational norms have limited influence. Understanding the domains where relational norms have and do not have significant influences helps deepen the knowledge about this important construct, which is useful for future research inquiries in the domain of relational exchange.

Finally, this study may modestly qualify the theoretical thrust of the prospect theory regarding the interrelations among status quo bias, endowment effect, and loss avoidance. The unsupported hypothesis regarding the moderating effect of relational norms on the relationship between power and innovation adoption calls the discipline to inquire about the theoretical basis of such hypothesis. The prospect theory articulates that status quo bias is an integral product of the endowment effect and loss aversion (e.g., Kahneman and Tversky, 1979; Samuelson and Zeckhauser, 1988). As it was discussed previously, it is possible that in the context of power differential and innovation adoption decisions, status quo bias, endowment effect, and loss avoidance may not operate in an integral manner. This opens an inquiry regarding the universal versus context-specific effects of these cognitive mechanisms offered by the prospect theory. Future research can pursue this type of inquiry and advance the understanding in this arena.

Managerial Implications

This study also offers two practical implications for managers. First, at the strategic level, power can be seen as a two-edged sword, particularly when firms are facing fast-changing business environments where innovations are critical to long-term survival and prosperity. While enabling firms to reap immediate gains, power can subject their decision makers to cognitive biases as discussed in this study and dissuade them from embracing innovations especially when generated by less powerful external parties. While this study does not provide a systematic solution to such power-induced bias, it raises managerial awareness to this issue. Being mindful and aware of their own potential biases, managers can to some extent make decisions more prudently.

Second, at the operational level, this study suggests that when it comes to innovation-related proposals from relatively small or less powerful suppliers/vendors, it may be advisable to clearly decouple the evaluation and the negotiation of the proposals. In the evaluation of the proposals, if possible, it may be useful to provide the technical details of the proposal to the evaluating team or panel without informing them about the identity or status of the suppliers (i.e., blind evaluation process). This practice is to reduce the potential biases induced by power differential and to enhance the objectivity of the evaluation. Once the technical merits of the proposal are ascertained, the firm can then use their power to influence the exchange terms of the proposal in ways that prevent potential opportunism, limit risks, and avoid various disadvantages (e.g., lock-in, exit barriers, rigid exchange structure, etc.). This step-wise approach to evaluation and negotiation with less powerful suppliers will help more powerful buyer firms be less prone to their power-induced bias while reaping returns from what less powerful suppliers can offer to the full extent.

Limitations and Future Research

Despite theoretical and managerial contributions, this study is not without limitations, which can guide future research directions. First, while this study finds a

negative effect of power on innovation adoption, it does not succeed in providing a systematic solution to this issue. Future research can focus on identifying mechanisms or approaches to mitigate power-induced cognitive biases and curb innovation-discouraging effects of power. This will be an important line of research that can help established firms with considerable power to sustain their relevance in the face of environmental changes with the need to embrace innovations. Second, while this study has theorized that greater power differentials induce the decision makers' cognitive biases and thus negatively influence their innovation adoption decision, the experimental design in this study does not empirically capture whether such cognitive biases have indeed occurred and led to such outcome. This study relied primarily on theoretical reasoning linking power differential to cognitive biases while only establishing the empirical link between power differential and innovation adoption decision. For example, it is well maintained in the literature (Kelly and Amburgey, 1991) that status quo contributes to organizational inertia, which limits innovations and changes. However, this study links power differential with status quo biases. Future research may expand on this study by directly operationalizing and incorporating different forms of cognitive biases and potential mediators (e.g., organizational inertia) into the research design to reveal finer-grained results. Finally, the scope of the experiment in this study is narrowly drawn around buyer firms with proposed innovations to suppliers in power differential dynamics. Future research can consider the reversed situation where the proposed innovation options flow from suppliers to buyers. However, since NPD often happens in a highly collaborative and joint context in BSRs, the buyer and the suppliers are both highly involved in the innovation, and distinction between the party that makes the product and the one that uses it are less clear. In addition, as the scope of this study is confined to the buyer-supplier power differential and the innovation adoption, the effect of the balance of power between exchange parties on the innovation adoption is not part of this research inquiry and not addressed in this study. Future studies can further examine these nuances and advance the understanding of this important phenomenon.

APPENDIX: EXPERIMENTAL SCENARIOS

Introduction	
<p>You are a senior manager of Company X, which is an aircraft component supplier. You have an existing buyer, Company Y, which is a commercial private jet manufacturer and has purchased components from your company.</p>	
Low Power	High Power
<p>The sales generated from the business with Company Y account for a significant percentage of your total sales. You thus depend on Company Y for achieving your sales and profit goals, and it is very difficult to replace sales and profits realized from Company Y with another buyer. Given the limited number of buyers at Company Y's caliber and the large number of suppliers comparable to your company in the industry, Company Y has the leverage over you and can put pressure on you if it wants to. Company Y can easily reward you by giving additional business to your company or simply punish you by cancelling the business with your company to the detriment of your company. Therefore, your relationship with Company Y is very critical to your company as a viable business entity.</p>	<p>The sales generated from the business with Company Y account for an insignificant percentage of your total sales. You thus do not depend on Company Y for achieving your sales and profit goals, and it is very easy to replace sales and profits realized from Company Y with another buyer. Given the large number of buyers comparable to Company Y and the limited number of suppliers at your company's caliber in the industry, you have the leverage over Company Y and can put pressure on Company Y if you want to. You can easily reward Company Y by continuing your business with Company Y or simply punish Company Y by cancelling your business with it to the detriment of Company Y. Therefore, Company Y's relationship with you is very critical to Company Y as a viable business entity.</p>
Low Relational Norms	High Relational Norms
<p>Both you and Company Y bring a formal and contract governed orientation to your business relationship. Exchange of information in this relationship takes place infrequently, formally, and in accordance to the terms of a pre-specified agreement. Even if you do know of an event or change that might affect the other party, you do not divulge this information to them. Strict adherence to the terms of the original agreement characterizes your relationship with Company Y. Even in the face of unexpected situations, rather than modifying the contract, you adhere to the original terms. You have an "arm's length" relationship with Company Y. You do not think that Company Y is committed to your organization—in fact; you think that if you did not carefully monitor Company Y, they would slack off from the original terms. Above all, you see Company Y as an external economic agent with whom you have to bargain in order to get the best deal for yourself.</p>	<p>Both you and Company Y bring an open and frank orientation to your business relationship. Exchange of information in this relationship takes place frequently, informally, and not only according to a pre-specified agreement. You keep each other informed of any event or change that might affect the other party. Flexibility is a key characteristic of this relationship. Both sides make ongoing adjustments to cope with the changing circumstances. When some unexpected situation arises, the parties would rather work out a new deal than hold each other responsible to the original terms. You tend to help each other out in case of unexpected crises. If Company Y is unable to order products from you, they recommend an alternative buyer to you to maintain the same order quantity. Above all, you have a sense that Company Y is committed to your organization and that they work with you keeping your best interests in mind. You see each other as partners, not rivals.</p>

APPENDIX (con't.)

Decision Point

Currently, you are working with Company Y in developing a new generation commercial private jet. This new aircraft aims to greatly improve fuel efficiency for private jet operators. In doing so, Company Y has proposed to you that your company make the body of the new aircraft completely with a lightweight and durable composite material. However, while composite materials have been used in wings and other parts in commercial aircrafts for years, the risks of having a composite body have not been fully assessed, unlike metals, the traditional material used in aircraft body. Failures in composite materials are also harder to detect than those in metals. This means that your company has to completely redevelop the design and the production process of aircraft body based on the new material. Alternatively, your Research & Development team believes that they can improve the aircraft fuel efficiency simply by tweaking the design of the current aircraft body instead of having to completely redesign it based on the new material. The resulting fuel efficiency improvement gained from tweaking the current design will be much less than that gained from the complete redesign based on the new materials as Company Y proposed. However, your company is familiar with the current body design and has already had its production process in place for years. As a senior manager of Company X, you need to make a decision whether (a) to accept the proposal from Company Y or (b) to tweak the current design of the aircraft body.

In this situation, how likely is it that you would decide to accept the proposal from Company Y instead of tweaking the current design of the aircraft body? (Please circle only one: 1 = very unlikely, 2 = unlikely, 3 = somewhat unlikely, 4 = neither unlikely nor likely, 5 = somewhat likely, 6 = likely, 7 = very likely)

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Resume Assessors' Experiences, Attitudes toward Job Context, and Corresponding Evaluations and Associated Confidence¹

Richaurd R. Camp
Professor of Management
Eastern Michigan University
rcamp@emich.edu

Denise Tanguay
Professor of Management
Eastern Michigan University
dtanguay@emich.edu

Megan Endres
Professor of Management
Eastern Michigan University
mendres@emich.edu

Kiplin N. Kaldahl
PhD Student - Department of Psychology
Colorado State University
kkaldahl@rams.colostate.edu

The process of reviewing resumes is an important component of organizations' talent assessment/employee selection process. It is important to the applicant because the results of the review of this information may be a gateway for a deeper assessment of his/her skills for the job or, alternately, end further employment hopes. It is also

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important to the organization because the reviewing process affects the candidate pool at the next step, and correspondingly the quality of the final selection decision. Thus, it is not surprising that several researchers who have examined the resume review process have explored the inferences drawn from the provided information. While some researchers have focused on discrimination concerns (Derous *et al.*, 2017), others have focused on inferences drawn from certain categories of activities (Nemanick and Clark, 2002) or certain personality dimensions (Cole *et al.*, 2003). Still other researchers have examined how the presentation of information affects the inferential process (cf., Martin-Lacroux, 2017). Therefore, much of the literature has focused toward the *outcome* or *skill ratings* resulting from the resume review process while paying minimal attention to how the attitudes and experiences of the person reviewing the resume might affect the process and outcomes. This study begins to fill that void by examining the relationship among the above variables.

Not every organization follows the same resume reviewing process. Some may use a standardized or even computerized methodology. Still it seems reasonable to suggest that a frequently used process, and the one examined in this study, involves an individual or group of employees who are asked for their feedback about an applicant based upon a quick review of his/her resume or application form. This might involve just looking at one resume or examining several different ones. What this article examines applies in both cases: how the individuals reviewing the resume use their own subjective standards to form their judgment. These individuals reviewing the resumes can vary considerably in terms of their attitudes, experiences and abilities, (as well as on other characteristics) not to mention their motivation just to take the time and effort to draw the best inference from the resume's information. Not everyone asked to "take a look at this resume" will necessarily be actively involved in each step of the recruitment process, nor have received any relevant training on how to review resumes most effectively nor have demonstrated the ability to draw accurate inferences. Nevertheless, for whatever reason, others value their input on the applicant; they then must take on the task of inferring what they view as the presence of needed skills from a resume. The remainder of this article refers to this diverse group of individuals as "assessors" and not "recruiters," since some of these individuals may not be active in the full range of recruitment activities or even parts of it.

This article's focus is not on what types of assessors draw the most valid inferences from resumes, but rather on key individual differences in variables (specifically key attitudes and experience) among assessors that are related to how information provided on a resume is judged. Given that this is a relatively unexamined area of investigation, this study should be viewed as preliminary research on this topic.

Job Context

This article's core assumption is that the context in which an applicant's behaviors and career experiences have occurred, and as they are reflected on the resume, will be associated by the assessor with certain of his/her own attitudes and experiences. Furthermore, these assessor attitudes and experiences will affect the skill ratings and confidence in those ratings assigned to the candidate. As with many concepts, there are different definitions of context. Johns (2006) has noted "it is tempting to view context as the salience of situational or environmental features to those being studied" (p 387). For the purposes of this study, job context refers to the situation(s) in which important

job behaviors or experiences have been or will be performed. In the process of hiring someone, one must consider a variety of contexts (e.g., the context in which the new hire will perform in the new job, or the context in which the applicant's information on the resume demonstrates how, or where, the applicant developed and displayed his/her skills and knowledge). For the purpose of this preliminary study, the focus is on the latter context.

There are many contexts (e.g., military service, employment in a not-for-profit firm, working in small or large organizations, employment in the public or private sector) that might be reflected on an applicant's resume as the environment in which the applicant acquired various skills and knowledge. The job context examined in this study, in order to get a better understanding of the resume review process, was the applicants' participation in collegiate sports. Large numbers of people in the U.S. as well as in many other cultures are touched in some way by sports either through participation, or observation. Additionally, sports are often associated with the development of important skills (Kelinske *et al.*, 2001), although some have suggested that recruiters do not value this skill development because it is not focused on a specific career (Spreitzer, 1994). Recently, an entire issue of the *Journal of Business and Psychology* explored the overlap between sports and organizational issues. One of the topics discussed was the implications of sports for the study of human capital (Gentry *et al.*, 2017).

Assessor Individual Difference Variables

Assessor attitudes and experience, the two major categories of individual difference variables examined in this study, were selected due to the research that shows their impact on behavior as well as the theoretical arguments (noted below) for their connections to the inferences and corresponding ratings examined in this study. First, strong evidence exists that attitudes toward an object reflect the individual's values and the individual's intended response to that object (Ajzen and Cote, 2008). Thus, one might expect that an assessor's attitudes toward the job context reflected in the resume's information will affect how that assessor responds to that information. Second, work experience has been shown to have a relationship with how an individual rates job content (Quinoñes *et al.*, 1995), but the strength of this relationship varies depending upon how work experience is measured.

Assessors' Attitude toward the Job Context. Due to the diverse nature of the information contained in resumes, assessors' attitudes toward job context are likely to play an important role in the assessor's skill ratings of candidates. Assessors often lack an objective standard for judging the quality of the information received in a resume; thus the process of making these inferences is likely to be subjective. Similarly, assessors may find it difficult to determine if the context in which the behavior occurs enhances the type of skill development the open position calls for. Given the lack of objective standards to judge the information on the resume, including the context in which these behaviors occurred, assessors must formulate their own standards and need something to utilize in developing this formulation. The assessor's attitudes toward the work context are likely to play a key role in this development.

Salancik and Pfeffer (1977, 1978) provide some insight into how the relationship between the assessors' attitudes toward the context (participation in collegiate sports is the context examined in this study) and the corresponding standards used to judge resumes are developed. Their social information processing model states that

perceptions of task situations (i.e., context) are affected by social influences. Sports affect many aspects of society and are a topic of frequent discussion (Laker *et al.*, 2002). Perhaps the best example of this social influence is how managers describe their own sports experiences and the effect they had on their managerial careers. Knoppers (2011) interviewed 67 senior managers, many (but not all) of whom noted how sports experiences were of crucial importance in developing their team and leadership skills. To the extent that a similar message is generally conveyed by other managers or work peers, this likely produces a strong social influence (even on assessors who have not personally participated in sports) to see this context as positive as something that enhances team and leadership skills. Strong perceived team and leadership skill development should also increase the perceived quality of overall job performance. Teamwork skills and leadership skills have historically been considered to be important factors of overall job performance (Viswesvaran, 1993).

One would expect that the impact of the social influence described above would vary depending on the assessor's characteristics. One such characteristic is the assessor's attitude regarding how sports have impacted their own life. Assessors who express an attitude that they are sports fans and that sports has given them great joy are likely individuals who paid careful attention to sports and what it provides including the skill development previously noted. Individuals who express less positive attitudes in terms of following sports and the impact of sports on their lives are unlikely to focus on and attend to the social information regarding the skill development benefits from sports. Thus, a key objective of this study is to examine the relationship between assessors' overall attitudes toward sports in their own lives and of the skill levels of applicants whose resumes reflect considerable experience demonstrated in the job context of sports participation.

Attitude toward Access to the Job Context for Others. Another attitudinal variable which can provide insight into the resume review process is the assessors' attitude toward access to a job context. Some groups of individuals have had limited access to certain job contexts. For example, women in the U.S. have historically not been given equal access to the job context of working in foreign countries as expatriates (Welsh and Kersten, 2014). In their expression of the attitude that there should be broad access to a particular job context, assessors are indicating that there are benefits to the excluded group for experiencing that context. In terms of the job context examined in this study (participation in sports), one such benefit would be the skill and knowledge development previously discussed. The expression of an attitude of the need for greater access to a job context is to some degree a statement of the strength of the assessors' belief regarding the importance of the job context. Individuals who express this view see this job context not just as something that is positive for themselves, but also something that others should have the opportunity to experience. Thus, it is suggested that there will be a strong relationship between assessors' attitude toward access for others to the job context of participating in collegiate sports and higher overall, team, and leadership skill ratings of applicants who express on their resume that they have participated in this job context.

Assessor Experience. Since the purpose of this study is to provide insight into the resume review process, both attitudinal and experience variables will be examined. Two kinds of assessor experiences are investigated. The first is the assessor's experience participating in sports. Camp *et al.* (2014) found that assessors who had a higher level

of participation in sports gave higher overall skill ratings to the fictional resumes of collegiate athletes. These findings are consistent with the thesis that context is associated with the level of skill ratings assessors apply to the behaviors candidates list on their resumes. However as previously noted, individuals can have strong attitudes toward a context even if they have not had direct experience participating in the context. For example, individuals who have not participated in sports could still have a positive attitude toward this context because they are a big sports fan or due to things they have read about the context. In terms of the resume review process, there appears to be a lack of research examining both how assessors' experience within a context as well as, how attitudes toward the job context are related to the skill ratings of applicants whose resumes reflect performance within that context. The current study begins to fill this void by examining this issue in more detail later in this paper.

Consistent with the Quinoñes *et al.* (1995) research, this study examined more than one type of experience. The second type was the amount of assessors' experience in reviewing resumes and making hiring decisions from resumes or application information in situations when resumes may not be required. Not all jobs require submitting a resume, but reviewing information provided on an application blank is viewed as an analogous process. In both cases, the assessor needs to draw inferences regarding skills from limited information. Thus, in the present study, assessors' experience in reviewing resumes was captured along with experience making hiring decisions. This variable has been defined and is referred to in the rest of this article as "assessor inference experience." Given the overlap in the inference processes between reviewing resumes and application blanks, the discussion in the majority of this paper focuses predominately on the resume review process.

Although developed for a different purpose than the focus of this study, the theoretical perspective from Morgeson *et al.* (2016) has implications for how assessor experience in reviewing resumes might impact the resume review process. In addition to their theory supported by the research on Cognitive Psychology, Morgeson *et al.* (2016) provide data that suggest that more experienced assessors will use more "big picture" guidelines in reviewing job context. Collapsing sports context into broad categories when reviewing resumes may be problematic given that what constitutes participation in college sports can vary across several areas such as the type of sport played (individual or more team based), the level of competition, and whether the candidate was a team captain. Failure to carefully consider these perhaps subtle differences might lead more experienced assessors to failures where the inferences they make regarding context are incorrect and result in less effective hiring decisions. Ideally, individuals might seek ways to improve their success in reviewing resumes and later the quality of their applicant pool. However, Langhammer *et al.* (2012) found the more typical response is for an assessor making selection errors to seek psychological comfort by using an external attribution for the negative results and blaming either the process or the information. These individuals would be reluctant to change their behavior and, instead, might be hesitant to take a risk and provide a positive rating from a resume. Alternatively, less experienced assessors should be more positive when rating skill development due to their attention to the unique details of the context in which the sports behaviors occurred.

In summary, this section provides a discussion of the impact of social information on the context of participation in college sports and on the attitude held by some toward

the job context, as reflected in their overall attitude towards sports in their own lives and toward sports access for others. Additionally, the theoretical perspective proposed in recent research on how different individuals examine work has implications for how the amount of experience reviewing resumes might affect how the context is perceived. These two research streams form the basis from which the following hypotheses were proposed:

Hypothesis 1a: *Assessors' overall attitude toward sports in their own lives will significantly and positively predict an overall suitability for hire rating, a teamwork skill rating, and a leadership skill rating.*

Hypothesis 1b: *Assessors' attitude toward sports access for others will significantly and positively predict an overall suitability for hire rating, a teamwork skill rating, and a leadership skill rating.*

Hypothesis 1c: *Assessor inference experience will negatively predict an overall suitability for hire rating, a teamwork skill rating, and a leadership skill rating.*

Assessor Confidence in Applicant Skill Ratings

Confidence in the skill ratings assessors derive from a review of candidates' resumes can clearly affect the selection process' overall quality. As noted earlier, assessors who have appropriately rated skill levels but lack confidence in their assessment might fail to advocate for a qualified candidate. This could result in the organization's loss of a talented resource. Similarly, assessors whose confidence in their ratings of skill level does not match the validity of their ratings might do just the opposite and encourage the hiring of a candidate who is not well suited for the job. This study does not examine if assessor confidence is appropriate or inappropriate, but rather how attitudes and experiences with the job context reflected in the resume and assessor experience are associated with assessor's confidence in his ratings.

Although a variety of individual and situational factors can affect decision confidence in reviewing resumes, this study's focus is on the information available to the assessor to judge the context in which the behaviors reflected on the resume occurred. Consistent with what one might expect, research indicates that the amount and strength of the information/evidence supporting the decision strengthens confidence (Tsai *et al.*, 2008). Assessors who are reviewing resumes are likely to have higher confidence in their ratings the more they have some type of data on which to base their assessments. Positive or negative attitudes could logically arise from social information and pressure, and there is always the possibility that they might also arise from other objective fact gathering done by the assessor. Regardless of the basis for the attitude, the information that results in the (overall) attitudes toward the context or toward some component of it should lead to higher confidence in assessment ratings due to the ability to rely on the information that created the attitude. Similarly, an assessor's experiences in the context should provide additional data on which to rely when making a self-evaluation of the rating's quality. Correspondingly, this should also enhance confidence since it is another data set the assessor can rely on. Finally, the amount of experience an assessor has in drawing inferences in reviewing resumes and making hiring decisions is another measure of experience with that context. In reviewing previous resumes or in following up in further selection steps, an experienced assessor is likely to have gathered some

sort of data about the job context in question that he/she can rely on to self-evaluate his/her actions. Thus, it was hypothesized:

Hypothesis 2a: *Assessors' overall attitude toward sports in their own lives will significantly and positively predict assessor confidence in an overall suitability for hire rating, confidence in a teamwork skill rating, and confidence in a leadership skill rating.*

Hypothesis 2b: *Assessors' attitude toward access to sports for others will significantly and positively predict assessor confidence in an overall suitability for hire rating, confidence in a teamwork skill rating, and confidence in a leadership skill rating.*

Hypothesis 2c: *Assessor inference experience will significantly and positively predict assessor confidence in an overall suitability for hire rating, confidence in a teamwork skill rating, and confidence in a leadership skill rating.*

Job Context Experience as a Moderator. Morgeson *et al.* have noted in discussing work experience, "In summary, what is needed is a more complex conceptualization of work experience that is anchored in theoretically derived hypotheses designed to explore the interactive effects of work experience" (2016: 1908). This article has hypothesized that both assessors' attitudes regarding the job context reflected in the experiences listed on candidates' resumes and assessors' experience in reviewing resumes and applications will affect skill ratings and assessors' confidence in their ratings. Another major source of information is the assessor's own level of experience in the job context reflected in the candidate's resume.

As previously noted, assessors can develop attitudes towards a job context without having personally experienced that specific situation. For example, assessors can have a positive attitude toward the skill development resulting from military service without having served in the military. This attitude can develop from social influence or from related but not direct experiences such as reading about the military, observations from people who have served, or from depictions of the military in mass media. In terms of the focus of this study, an assessor can have a positive attitude toward sports without having direct experience as a participant within the job context. Similarly, an assessor might have a great deal of experience in drawing inferences from behaviors which occurred in a specific context without having any direct personal experience as a participant within that context. Thus, for some assessors their attitudes toward job context and inference experience reviewing resumes and applications are formulated from a base of indirect rather than direct experiences regarding the job context reflected on the resume or application.

Since sports experience is the context focused on in the present article, the assessor's amount of sports experience is direct experience in that context. Research has indicated that, in risky decision situations, direct experience is given more weight over indirect experience (Viscusi and Zeckhauser, 2015). Assessing talent from a resume is a risky process since it requires considerable skill with often limited information. Additionally, applying the theoretical perspective in Morgeson *et al.* (2016) suggests assessors with greater sports experiences should be more likely to use heuristics to view job context resulting in negative results and a negative view of the value of this context. Based upon these theoretical perspectives, it was hypothesized that:

Hypothesis 3: *The amount of sports experience will moderate the relationship between assessors' inference experience and the level of the overall suitability for hire rating based upon a review of the resume. The amount of the assessors' sports experiences will have its greatest, and a negative, impact on the overall suitability for hire ratings of candidates from assessors with a lower level of inference experience.*

As noted earlier, the amount of relevant information possessed by a decision-maker affects decision confidence (Tsai *et al.*, 2008). It seems reasonable to suggest that experience in the job context areas would likely be perceived as highly relevant information for reviewing resumes. The effect of this information on the resume review process would likely be greater when the assessor does not have other information (such as experience in reviewing resumes) to rely on. Thus, it was hypothesized that:

Hypothesis 4: *The amount of sports experience will moderate the relationship between assessors' inference experience and confidence in the level of the overall suitability for hire rating based upon a review of the resume. The amount of assessors' sports experiences will have its greatest, and a positive, impact on confidence of the rating of the overall suitability for hire ratings of candidates from assessors with a lower level of inference experience.*

Due to space constraints, overall suitability for hire was the only area in which moderator effects on skill and confidence ratings is examined in the study. However, determining overall suitability is the ultimate purpose and charge to the assessor reviewing a resume, and therefore, it was selected as the appropriate focus of potential moderator impact.

METHOD

Participants

Participants (n = 205) were undergraduate students at a large Midwestern university who volunteered to participate in the experiment for extra course credit. Students were recruited from a variety of management and human resource management courses. Approximately half of the students were male (n = 105, 51.2%), and most were Caucasian (n = 147, 71.7%) or African American (n = 36, 17.6%). Ages ranged from less than 21 years (n = 21, 10.2%) to over 55 (n = 10.5%), with the majority between ages 21 and 34 years (n = 162, 79.0%). Nearly all participants reported some work experience (n = 177, 86.34%), and most had supervisory and/or management experience (n = 138, 67.32%). Given the diversity in terms of age and work experience, this sample is appropriate for this study since it reflects the wide range of individuals who might be called on for a quick or longer review of a resume in terms of the applicant's qualifications for an open position. Additionally, this type of student sample has been deemed an appropriate representation of adult decision-makers in similar past studies of resume reviews (Nemanick and Clark, 2002).

Manipulation Check and Study Procedures

Manipulation Check for Job Context. In this study, subjects were asked to review the resumes of eight different fictional individuals. The major job context reflected in each resume was that each applicant played a Division I sport for all four years of college. Prior to the actual data collection, a pilot study was completed in order to determine the clarity of instructions, average time taken to complete the study instruments, equivalency of resume items, as well as to assure that sports were viewed as the major job context reflected on these resumes. This pilot was also used to determine if there were any other issues raised by the participants that would affect the experimental process. Ten subjects were asked to identify any noticeable differences among the items listed on the eight resumes used in the study. Only applicant gender, variation in sports, and captaincy were noted as differentiating the various resumes, and one or more of these were mentioned by a majority of the ten pilot study participants. This feedback was elicited as a positive manipulation check to ensure that subjects focused on sports as the key job context on the resumes as well as to ensure that subjects did not view other factors as key differentiators between the resumes, such as internship type, for example. Minor changes were made in the data collection process based upon the pilot, primarily in the emphasis within the oral directions provided and in the design of the reporting form for demographic information related to participant sports experience.

Procedure. Participants were told that they would be acting as a human resource manager in a large organization and reviewing resumes of eight college graduating seniors for a management trainee program. No specific job description was given so that a broad set of skills and characteristics were needed. Participants were also told that they would have 30 minutes to rate applicants on important job dimensions and should not recommend applicants they believed were unqualified since it would waste the organization's time and resources.

The eight resumes varied based on gender and included an equal number of men and women, sport type (individual or team sport), and status on the team (captain or member only). These variations were made so that each resume contained a unique but equal mix of the parameters. Each resume was one page long, and all included status as a graduating senior, GPA range of 3.13-3.21, and a Bachelor of Business degree in Management from the same Midwestern university. Each candidate had one or two short periods of similar work experience, a management internship, and one volunteer activity. After completing their skill ratings of candidates, participants completed a separate demographic questionnaire that included the measures described below.

Although each subject supplied the data for both the independent and dependent variables, common method bias should not have affected findings significantly. Subjects completed the independent and dependent measures at different times. Also, there is no obvious reason a subject would strive to be socially desirable or consistent in responses (Podsakoff *et al.*, 2003). Finally, some independent variables are subject-reported factual information, alleviating reliance on only attitudes and beliefs.

Measures of Correlates of Job Context (Independent Variables)

Assessors' Overall Attitude toward Sports in their Lives. The intent of this measure was to assess subjects overall attitude toward sports regardless of their level of actual experience as a sports participant. To achieve this objective, participants rated two statements on a

five-point scale (1 = strongly disagree, 5 = strongly agree): “I consider myself a sports fan” and “Sports have given me a great deal of joy in my life.” Coefficient alpha (Cronbach and Gleser, 1959) was used to determine reliability and was strong ($\alpha = 0.84$, $M = 3.70$, $SD = 1.09$).

Assessors' Attitude Towards Sports Access for Others. Participants were asked to rate their degree of agreement with the statement, “I consider Title IX, which provided equal opportunities for women in both high school and collegiate sporting events, as an important and positive piece of legislation” (1 = strongly disagree, 5 = strongly agree). Title IX support should be a strong proxy for attitudes toward equal access to sports participation due to its primary goal to increase accessibility and opportunity to women (Averett and Estelle, 2013). Furthermore, compliance with Title IX may lead to redirecting resources from men’s sports to women’s in order to receive Federal funds, so its support implies equal access is worth sacrifice. Supporters of Title IX often note the importance of lifelong and job-relevant skill development derived from sports participation. In a 2017 survey of over 1,300 U.S. adults, 86% agreed that participating in sports builds leadership and teamwork skills that students might not otherwise develop in their academic work (Women’s Sports Foundation, 2017).

Assessor Inference Experience. Two questions assessed the participant’s experience in resume review and hiring. First, participants responded to the question, “How many resumes have you personally reviewed and evaluated on potential job applicants in your work life?” using a five-point scale: 1 = none, 2 = fewer than 10, 3 = 11 to 25, 4 = 26 to 50, and 5 = greater than 50. Although the focus of the present study was on assessors’ reactions to the job context reflected in the candidates’ background and career history listed on their resumes, for some jobs individuals might not submit a resume as part of the application process. Still, it is argued that the assessor’s inferential processes discussed in this article would apply, even if the information used for that inference comes from information on a standard employment application and not a formal resume. Therefore, to assure that these types of hiring decisions were not excluded from the participants’ stated experience level, respondents rated the statement, “Estimate the number of applicants whom you have personally hired to this point in your work life” on a scale using 1 = none, 2 = 1 to 10, 3 = 11 to 20, and 4 = greater than 20. Reliability was strong ($\alpha = 0.82$, $M = 1.82$, $SD = 1.08$). These two items were combined and labeled “Assessor Inference Experience.”

Assessor Sports Experience. Participants were asked how many years of high school and college sports they had played. The number of years was calculated per sport played. For example, if a participant played basketball and soccer for a year during the same year, the total number of years would be two. Similarly, if basketball was for one year and soccer a different year, the count would also be two. Data for the variable representing years of assessor sports experience were not normally distributed ($\mu = 3.97$, $SD = 4.08$). When divided by standard error, skewness and kurtosis statistics both exceeded 1.96 (6.38 and 2.31, respectively). To avoid distorted results, three classes were created based on the distribution of the data suggesting three groups: (1) zero years of sports experience ($n = 63$, 30.7%); (2) one to six years of sports experience ($n = 68$, 33.2%); and (3) more than six years of sports experience ($n = 74$, 36.1%). Other study variables did not need adjustment.

Dependent Variables

Candidate Skill Ratings. Participants rated applicants using a nine-item measure based on similar studies (Nemanick and Clark, 2002; Powell and Goulet, 1996). The scale ranged from 1 (extremely weak) to 5 (exceptionally strong). The items assessed applicant skill in teamwork, leadership, dedication, delivery of presentations, adaptability, likeability, information technology use, overall suitability, and likelihood of doing well in a future interview. An example is, "From the information you have, how would you rate the candidate's ability to motivate and lead a team (leadership skills)?" Factor analysis supported that the scale was unidimensional, and reliability was strong ($\alpha = 0.85$, $M = 3.80$, $SD = 0.36$). In a second set of the same nine items, the participants were asked how confident they were in the accuracy of their ratings (1 = 100% confident, 5 = 0% confident). These items also loaded on one factor and displayed good reliability ($\alpha = 0.89$, $M = 4.16$, $SD = 0.52$).

Single-item dependent variables were used for the hypotheses regarding teamwork and leadership ratings. Single-item measures are considered appropriate for certain types of organizational studies (Alexandrov, 2010; Fisher *et al.*, 2016; Rossiter, 2008), especially with simple constructs (Wanous *et al.*, 1997) and those that are used in practice as single items (Fuchs and Diamantopoulos, 2009). The objective in this study was for participants to react to the resumes as they would in an organizational situation, where evaluation is widely considered to be a set of quick judgments inferred from the resume (Arnulf *et al.*, 2010).

Demographics. Gender was not associated with the study variables. As expected, age was strongly correlated with the assessor inference experience independent variable ($r = 0.43$, $p < 0.001$) and, therefore, is not included as a control in the analyses.

RESULTS

Background Analyses

Table 1 shows the correlations and descriptive data for the study variables. Where applicable, Cronbach's (1951) alpha reliability statistics are given in the diagonal.

Testing Hypotheses

Univariate ANOVA was used to test the independent variables' joint effects on each measure of ratings and each measure of confidence in the ratings. Predictors were tested in the same model because assessors would not rely on each individually, thus providing a more realistic assessment, and each dependent measure was analyzed separately. Table 2 shows that the proposed model predicting the overall rating was significant ($F = 2.99$, $p < 0.001$). Prediction models of the single-item ratings for leadership ($F = 3.424$, $p < 0.001$) and teamwork ($F = 2.114$, $p < 0.001$) were each also significant.

Table 1
Descriptive Statistics and Correlations among Study Variables

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Overall average rating	3.70	0.40	(0.85)								
2. Leadership rating	3.68	0.45	0.713**	-							
3. Teamwork rating	3.96	0.44	0.748**	0.752**	-						
4. Confidence—overall rating	4.20	0.58	0.151*	0.142*	0.188**	-					
5. Confidence—leadership rating	4.17	0.57	0.233**	0.251**	0.232**	0.805**	-				
6. Confidence—teamwork rating	4.29	0.53	0.286**	0.264**	0.340**	0.788**	0.866**	-			
7. Assessor sports experience	2.05	0.82	0.157*	0.193**	0.160*	0.001	0.032	0.019	-		
8. Assessor attitude toward sports access for others	3.88	0.94	0.168*	0.139*	0.166*	0.203**	0.175*	0.180**	0.040	(0.82)	
9. Assessor inference experience	1.82	1.08	-0.111	-0.071	-0.099	-0.033	-0.061	-0.108	-0.018	-0.045	(0.84)
10. Assessor overall attitude toward sports in own life	3.70	1.09	0.241**	0.278**	0.161*	-0.013	0.074	0.028	0.485**	0.047	-0.058

Note. n = 205. Numbers on diagonal are coefficient alpha reliability estimates. *p < 0.05 (two-tailed). **p < 0.01 (two-tailed).

Table 2
Univariate ANOVA Results Predicting Rating Outcomes

	Overall Average Rating			Leadership Skill Rating			Teamwork Skill Rating		
	F	Sig.	Partial Eta Squared	F	Sig.	Partial Eta Squared	F	Sig.	Partial Eta Squared
Corrected Model	2.99	0.001**	0.146	3.424	0.000**	0.163	2.114	0.021*	0.108
Intercept	467.917	0.001	0.708	245.677	0.000	0.560	329.521	0.000	0.631
Assessor attitude toward sports access for others	9.436	0.002**	0.047	5.932	0.016*	0.030	7.214	0.008**	0.036
Assessor inference experience	1.163	0.282	0.006	0.438	0.509	0.002	1.667	0.198	0.009
Assessor overall attitude toward sports in own life	6.221	0.013*	0.031	12.324	0.001**	0.060	1.751	0.187	0.009
Assessor sports experience	2.16	0.118	0.022	1.436	0.240	0.015	2.293	0.104	0.023
Assessor sports experience X Assessor attitude toward sports access for others	3.856	0.023*	0.038						
Assessor sports experience X Assessor inference experience	2.084	0.127	0.021						
Assessor sports experience X Assessor overall attitude toward sports in own life	1.753	0.176	0.018						

As assessors' overall attitudes toward sports in their own lives increased, so did their overall ratings ($F = 6.22, p < 0.01$) and leadership ratings ($F = 12.32, p < 0.001$) for candidates. Teamwork ratings did not change with higher attitudes. Therefore, Hypothesis 1a was partially supported. As assessors' attitudes toward sports access for others increased, so did their overall ($F = 9.44, p < 0.002$), leadership ($F = 5.39, p < 0.02$), and teamwork ratings ($F = 7.21, p < 0.01$), supporting Hypothesis 1b. Assessor inference experience did not predict overall, leadership, or teamwork ratings, giving no support to Hypothesis 1c. Overall, it can be said that these specific types of attitudes toward sports affected applicant ratings. In most cases, more positive attitudes resulted in more positive ratings.

Assessors' overall attitude toward sports in their own lives did not predict confidence in overall, leaders, or teamwork ratings, lending no support to Hypothesis 2a (see Table 3). Assessors' attitude toward sports access for others positively predicted assessor confidence in the overall ($F = 5.99, p < 0.015$), leadership ($F = 6.541, p < 0.011$), and teamwork ratings ($F = 5.71, p < 0.018$), supporting Hypothesis 2b. Assessor inference experience positively predicted confidence in the teamwork rating at a marginally significant level ($F = 3.08, p < 0.081$), but did not predict assessor confidence in overall or leadership ratings. Therefore, Hypothesis 2c received weak, partial support. In sum, assessors appear to have higher confidence in their ratings with higher attitudes toward sports access for others. However, their experience and attitudes toward sports in their own lives don't affect their confidence in ratings.

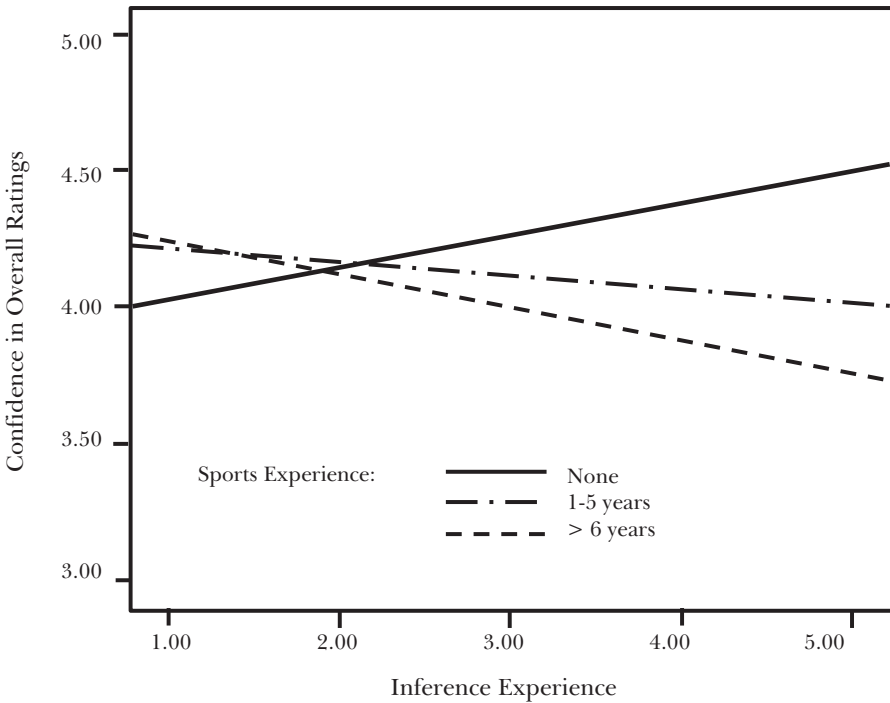
Hypothesis 3 proposed that assessor sports experience would moderate the effects of assessor inference experience on overall ratings. Assessor inference experience did not interact with assessor sports experience to affect overall ratings. Therefore, Hypothesis 3 was not supported.

Hypothesis 4 proposed that assessor sports experience would moderate the effects of assessor inference experience on assessor confidence in overall ratings. Assessor inference experience interacted with assessor sports experience to predict rater confidence in overall ratings ($F = 5.28, p < 0.006$) (see Figure I). For assessors with no sports experience, confidence in overall ratings increased as assessor inference experience increased. However, for assessors with moderate and high sports experience, confidence decreased as assessor inference experience increased. Assessors with the highest sports experience (over six years) reported the strongest drop in confidence as assessor inference experience increased. At the lowest levels of assessor inference experience, those with moderate and high sports experience were more confident in their ratings than those with no sports experience. In sum, assessors' sports experience doesn't change effects of inference experience on ratings. However, sports experience does change how inference experience affects confidence. Sports experience appears to dampen impact of assessors' inference experience. Those with no sports experience appear to have little doubt in their ratings, while those with higher inference experience lose confidence with sports experience.

Table 3
Univariate ANOVA Results Predicting Confidence in Rating Outcomes

	Confidence in Overall Average Rating			Confidence in Leadership Skill Rating			Confidence in Teamwork Skill Rating		
	F	Sig.	Partial Eta Squared	F	Sig.	Partial Eta Squared	F	Sig.	Partial Eta Squared
Corrected Model	1.982	0.032*	0.102	2.232	0.014*	0.113	2.020	0.028*	0.103
Intercept	288.869	0.001	0.599	237.027	0.000	0.551	318.593	0.000	0.623
Assessor attitude toward sports access for others	5.985	0.015*	0.030	6.541	0.011*	0.033	5.709	0.018*	0.029
Assessor inference	0.536	0.465	0.003	1.180	0.279	0.006	3.081	0.081†	0.016
Assessor overall attitude toward sports in own life	0.065	0.799	0.000	0.096	0.757	0.000	0.132	0.717	0.001
Assessor sports experience	5.025	0.007**	0.049	4.781	0.009**	0.047	3.437	0.034*	0.034
Assessor sports experience X Assessor attitude toward sports access for others	0.983	0.376	0.010						
Assessor sports experience X Assessor inference	5.282	0.006**	0.052						
Assessor sports experience X Assessor overall attitude toward sports in own life	2.699	0.070†	0.027						

Figure I
Interaction Effects of Assessor Inference Experience and Assessor Sports Experience on Confidence in Overall Ratings



Although not included as specific hypotheses, to develop a better understanding of how assessors’ overall attitude toward sports in their own lives and attitudes toward sports access for others are related to ratings, some additional interaction analyses were examined. The interaction between overall attitude towards sports and assessor inference experience was examined separately for overall suitability and also for confidence ratings. Neither analysis was significant. The same two interactions were examined with assessors’ attitude toward sports access for others and assessor’s sports experience. Again, neither analysis was significant.

Assessor sports experience interacted with assessors’ overall attitude toward sports in their own lives to predict confidence in overall ratings, but only at a marginal level of significance ($F = 2.70, p < 0.07$). For assessors with no or moderate levels of sports experience, higher levels of overall attitudes towards sports in their own lives did not raise confidence significantly. For assessors with a high level of sports experience, however, a higher overall attitude toward sports in their own lives resulted in lower confidence in overall ratings. Despite the negative relationship, those with high sports experience reported higher confidence than those with no or moderate levels of sports

experience, albeit at a declining rate, except at the point of moderately high and high assessor inference experience. For these assessors, confidence was highest for those with no or moderate sports experience. Assessor sports experience interacted with assessors' attitude toward sports access for others to significantly affect overall ratings ($F = 3.86$, $p < 0.02$). For assessors with higher sports experience (over six years), higher facet attitudes toward sports had no effect on overall ratings. For assessors with no sports experience or moderate sports experience (one to six years), higher attitudes toward sports access for others increased overall ratings. Assessor sports experience did not interact with assessors' attitude toward sports access for others to predict confidence in overall ratings.

DISCUSSION AND CONCLUSIONS

Results of this study suggest that attitudes toward the job context of the person reviewing one's resume can significantly predict how that resume or application is likely to be evaluated (in this case, within the job context of collegiate athletics). If the assessor reviewing one's resume or application expresses a positive attitude toward sports in their own life, results of this study suggest one will likely be viewed as having higher skill levels, but the assessor will not necessarily have as high a level of confidence in his/her assessment. Thus, perhaps the assessor will pass the resume along for further review but will not necessarily be as strong an advocate for the candidate since he or she lacks the same level of confidence in the initial assessment as other assessors might. However, if the person reviewing one's resume holds a positive attitude toward access for others to the job context (participation in collegiate sports in the current study), results of this study indicate that one is likely to be rated more highly on skills and the assessor will be more confident in his/her ratings. It seems reasonable to suggest that assessors who have a higher confidence in their ratings would be stronger advocates for applicants who have experience in this context. However this is an issue that certainly merits further research. Does an assessor's confidence in ratings result in stronger advocacy for an applicant and does this produce a positive impact on that candidate's movement forward? Perhaps the more important question is whether this is a good thing. If this is due to an inaccurate and unsubstantiated bias, it may negatively affect the pool's development at the hiring process' next step. Alternatively, it might uncover a talented candidate who might in other situations be overlooked.

As noted, this study examined only one context: participation in collegiate sports. This context is a topic of considerable discussion within society, which could be a factor that affected these results. However, there are many other contexts (e.g., military service, working in a not-for-profit firm, working in small or large organizations, working in the public or private sector) which are also topics of considerable discussion and have the potential to have an impact similar to that seen in this study. Similarly, for some assessors, these contexts (e.g., military service or working in not-for-profits) may reflect the core values of assessors reviewing resumes or applications. Further research is needed to examine whether the assessors' positive attitudes towards these varied contexts are associated with the skill ratings inferred from a resume. Also, further research is needed to examine whether there are additional attitudes towards these contexts that have the same or stronger effects both on skill ratings and confidence in ratings as the attitudes investigated in this study.

Organizations need to carefully consider whether the relationships noted here between the attitudes examined in this study toward job context and their skill and confidence ratings of applicants are a benefit or detriment to their selection process. If these attitudes (or other attitudes toward job context) reflect broad stereotypes that have nothing to do with job performance, organizations might want to consider training recruiters to avoid overreliance on them. Similarly, if evidence indicates they are a means of identifying an important and relevant labor pool that might be overlooked by others with different attitudes toward the context, recruiters (or anyone involved in reviewing resumes or any aspects of the screening process) training might also be needed to illuminate an unconscious bias that might occur against these job contexts. Further research is needed on this issue, but the results of this study show that job context attitudes are related to skill and confidence ratings and these attitudes have differential impacts based on the assessors' experience within the job context reflected in the reviewed resume. Thus, these findings suggest that attitude toward job context can play a key role in how elements of resumes are reviewed.

The moderating effect of experience in the context (in this case, sports experience) on the assessor's confidence in his/her ratings provides some insight into the inferential process involved in reviewing resumes or applications. Assessors need something to rely on for their confidence. In the present study, assessors with little assessor experience seemed to rely on their experience within the context as a basis for their confidence. However, this effect reversed for assessors with greater experience drawing inferences from resumes, and was stronger for assessors with more experience within the context.

From a selection perspective, is this a good thing? Given the preliminary nature of this research, and given that the study did not include actual measures of candidates' skills, it is hard to answer that question. However, the strong relationship of experiences drawing inferences to reduced confidence in ratings, particularly for assessors with experience within the context, merits further research.

As with any research, this study had limitations. Perhaps the biggest limitation was the challenge of controlling for threats to internal validity to ensure that the context of sports was the assessors' key focus in reviewing these resumes. As previously noted, a pre-testing of subjects' perceptions of the resumes indicated that the context of sports was salient, but a more rigorous manipulation check would strengthen this and other research on context.

Some may question the external validity of these results due to the nature of the job that applicants were applying for and the homogeneous information listed on the applicants' resumes. The position requirements for the job were not well defined since the job was presented as an entry-level position relevant to the applicant's academic area. Similarly, all the resumes were relatively equal in terms of academic qualifications, work experience, and service activities. As the only thing they had to rely on when they differentiated between applicants, assessors may have focused on their attitude toward the context in which the behaviors were displayed as well as their experience in that context as a basis for inferring skills. As noted at the beginning of this discussion, the focus of this research was designed to examine the situation just described. Given this situation, which it is suggested is not uncommon in the resume review process, the results indicate that assessors relied on their attitudes and experience to rate the applicants. Assessors had the option of rating all applicants as equally qualified but many elected not to do so. Given the fact that the results applied to the specific situational

constraints of this study leaves open the question of whether they have implications for, or can be generalized to, other types of situations in which resumes are reviewed. Even when there is a well-documented, easily recognizable valid differentiator of job performance, research suggests that assessors often prefer to rely on their own subjective assessment of applicants (Lodato *et al.*, 2011). Further research is needed to examine the extent to which assessors' attitudes and experiences also affect these other situations.

The fact that students were used as assessors in this study might be perceived as one of those limitations, but it can also be argued that it might also be viewed as a strength. The experience level of individuals who review resumes can vary widely, as it did with the study's adult student sample. The range of experiences of this sample reflected the wide range of individuals who have at some point in their careers – or have not yet – been involved in drawing inferences from resumes or applications. Student samples have also been noted as being very beneficial in preliminary theory building research (Greenberg, 1987).

In summary, this study has examined some issues that (it appears) have not typically been examined, but that have important implications for selection decisions within organizations. These issues included how attitudes toward the job context reflected on resumes are related to skill ratings from that resume and confidence in those ratings. The study also examined how assessor experience in drawing inferences from resumes (or application blanks) was related to skill and confidence ratings. Finally, several interactions were examined in order to get a better understanding of how the variables examined are related to assessors' skill ratings as well as to the confidence they feel in their ratings. Given the preliminary and correlational nature of this study, causality cannot be determined. However, the significant findings, particularly those regarding the relationship of assessors' attitudes to skill and confidence ratings suggest that the issues raised in this article warrant further, perhaps deeper investigation.

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The Moderating Effect of Age on the Relationship between Coworker Support and Behaviors that Predict Derailment

William A. Gentry

Director, Career and Professional Development
High Point University
wgentry@highpoint.edu

Tracy Lambert Griggs

Assistant Professor of Management
Winthrop University
griggst@winthrop.edu

Scott P. Mondore

Managing Partner
Strategic Management Decisions, LLC.
smondore@smdhr.com

Despite nearly 100 years of research on what makes managers effective, research estimates that roughly half of managers are ineffective and/or derail at some point in their career (Gentry, 2010; Hogan *et al.*, 2010). Derailment occurs when a leader, who was initially expected to advance in an organization, fails to meet his/her potential and is instead fired, demoted, forced into early retirement, or plateaus below expected levels of achievement (Lombardo and McCauley, 1988). Derailment represents a significant cost to both individual managers and their organizations (Carson *et al.*, 2012; Gentry, 2010; Hogan *et al.*, 2010) and may also have a significant influence on executives due to catastrophic loss of identity, impact to family functioning, and psychological well-being. For these reasons, recent research has focused on better understanding what relates to behaviors that predict derailment including demographics (e.g., gender, age), dispositional traits (e.g., narcissism) and behaviors (e.g., inability to delegate, listen), and more recently, the organizational conditions (e.g., lack of development, support) under which derailment is likely to occur (McCormack *et al.*, 2017).

In recent years organizational researchers have shown increased interest in the efficacy of supportive relationships at work, including the role of perceived social support on job performance and extra role performance (e.g., Chen *et al.*, 2009; Shanock and Eisenberger, 2006) and on workplace attitudes and psychological outcomes (e.g., Ng and Sorensen, 2008). Much of this literature has focused on the role of perceived support from supervisors (e.g., Shanock and Eisenberger, 2006). However, less is known about the role of coworker support on career outcomes, particularly among executive leaders who are often socially isolated, disconnected, and sometimes shielded from organizational problems and data as a result of their status and position (Tost *et al.*, 2012). Further, research on the efficacy of socially supportive relationships at work is mixed and suggests that the effectiveness of support may differ based on the needs, motivations, and values of the recipient (Beehr *et al.*, 2010). One dimension yet to be explored is how the differences in age-related needs and motivations may change the value of social support for increasing performance and career-related outcomes. A growing body of research on successful ageing suggest that individuals may rely more on social relationships to compensate for or overcome age-related performance declines. The purpose of this study is to examine whether coworker support is associated with displays of behaviors that predict derailment and whether the efficacy of coworker support might intensify with age.

This study makes several important practical and theoretical contributions. First, because of the financial investment companies make in their leaders and because of the potential impact those leaders have on the morale and motivation of their employees, identifying whether leaders display behaviors that predict derailment has cost saving implications for both leaders and their organizations (Gentry, 2010; Hogan *et al.*, 2010). Second, this study is the first to extend coworker support research to the domain of derailment. While much of the derailment literature points to personality flaws which may drive derailment behavior, many studies suggest that derailed managers, regardless of age or career stage, may recover from impending derailment if they develop self-awareness and utilize appropriate resources (Shipper and Dillard, 2000). This study posits coworker support as an instrumental mechanism whereby leaders may learn to better cope with stress and receive the constructive developmental feedback they need to stop displaying behaviors that predict derailment and avoid derailed. Third, this study adds to the growing body of research on successful ageing at work. Recent studies suggest age-related differences in employee performance may result from declines in physical, psychological, and cognitive capacities across the lifespan, and that these changes may affect stress and coping strategies at work (Ng and Feldman, 2008). Research also suggest that differences in attitudes, values, and motivations across the lifespan may impact the strategies organizational leaders employ to respond to stressors as they age (Kanfer and Ackerman, 2004; Kooij *et al.*, 2011). Such differences have more substantive practical implications for whether and how managers seek coworker relationships as a means to foster, support, and develop their own careers.

THEORETICAL BACKGROUND

When leaders' development doesn't keep pace with their rise in the organization, their inability to meet the expectations of the role often causes stress for both themselves and others, leading to greater role ineffectiveness, and eventually, derailment. However,

with accumulated resources to meet the new demands, leaders may be able to overcome the challenges and continue to excel at higher levels of the organization (Shipper and Dillard, 2000). Conservation of Resources (COR) theory is used to develop arguments and hypotheses of the current research.

Conservation of Resources Theory

This study draws from COR theory which conceptualizes the stressor-strain relationship as a function of demands (e.g., physical, social, and cognitive-emotional stressors) and resources (e.g., personal, capital, environmental and working conditions) (Hobfoll, 1989). Job demands require sustained physical, psychological, cognitive, or emotional effort and are thus associated with psychological or physiological costs to a manager (Bakker *et al.*, 2007). Alternatively, resources include objects, personal characteristics, working conditions or energies which are valued by a manager. Resources serve as a way to reduce job demands or reduce stress or strain associated with those demands, ultimately helping a manager achieve current goals and future ambitions (Hobfoll, 1989). From a COR perspective, managers with greater resource reserves should be better able to cope with the stress and strain that come with the demands of higher level managerial positions, and thus less likely to display behaviors that predict derailment.

Social Support as a Resource

Social support is an interpersonal transaction that involves emotional concern, consideration, instrumental aid, assistance, information, or appraisal, and creates a sense of being valued by others (House, 1981). The study of social support in work settings has increased steadily over the past three decades with the establishment of organizational support theory which refers to the psychological processes underlying the development, nature, consequences and outcomes of support from the organization and the people within it (Eisenberger *et al.*, 1986; Kurtessis *et al.*, 2017; Shanock and Eisenberger, 2006). According to this research, social support serves as an important resource upon which managers may draw to cope with stress, reduce burnout, and enhance performance (Terry *et al.*, 1993).

A growing body of research has considered coworker support as a relevant resource related to a variety of work outcomes (Halbesleben, 2006). Coworkers represent a special subset of organizational actors, which may provide not only information and instrumental aid (e.g., help with workload or providing technical expertise), but also socio-emotional support, feedback, and a sense of belonging at work. Indeed, perceived support from one's coworkers is linked to the ability to accomplish work tasks and goals, influencing such feelings as work morale (Susskind *et al.*, 2003), and the ability to solve problems, as well as lessening stressors and exhaustion (Schaufeli and Bakker, 2004). Coworker support is also positively linked to satisfaction and commitment to work (Chao *et al.*, 1994; Hurlbert, 1991), influences turnover intentions and performance (Beehr *et al.*, 2000; Cho and Johanson, 2008), and is negatively linked to burnout (Lee and Ashforth, 1993; Leiter and Maslach, 1988).

With regard to derailment, the emotional concern and instrumental aid from socially supportive relationships may be crucial due to the stressors and demands inherent in higher managerial positions with increasing levels of responsibility and

authority (Hobfoll *et al.*, 2003; House *et al.*, 1988). For instance, a supportive coworker may pick up the extra slack, cover for mistakes, or evaluate and help make sense of recent interpersonal interactions. Among the primary factors contributing to derailment, research cites strengths overdone (strengths that become weaknesses), negative personality traits, and a general lack of organizational support (Gentry, 2010; Hogan *et al.*, 2010; McCormack *et al.*, 2017). Self-awareness has been identified as a key factor to prevent managerial derailment (Cullen *et al.*, 2015). Supportive coworkers may help illuminate weaknesses or blind spots, contribute to behavioral or social development, and help managers spot talent. For these reasons, support from one's coworkers can serve as a resource gain that both reduces managerial job demands and alleviates the stress associated with those demands, thereby increasing perceptions of competence and success in higher managerial positions (Halbesleben *et al.*, 2014; Hobfoll *et al.*, 2003). This leads to the following hypothesis:

Hypothesis 1: Coworker support will be negatively related to behaviors that predict derailment such that managers who experience greater levels of coworker support will receive lower ratings of the display of behaviors that predict derailment from their boss.

Age as a Moderator

The U.S. workforce is ageing. By the year 2024, almost one in four workers will be age 55 or over and their projected share in the overall workforce will be the largest (24.8%) among all other age groups (Morisi, 2016). Given the increasing median age of the workforce over the past few decades, research has focused on differences in age-related motivations, values and needs at work in an effort to aim appropriate resources to employees based on their unique needs. Yet, and despite several calls for research on the topic, very few studies to date have examined the boundary conditions under which socially supportive relationships benefit leaders. There may be age differences in the extent to which social support is sought and some research points to differences in the extent to which support is helpful (e.g., Beehr *et al.*, 2010). As one example, research on successful ageing at work suggests that employees' values, motives, emotional regulation, and coping strategies may differ across the lifespan in ways that meaningfully predict their success at attaining goals. Among those coping strategies are emotionally supportive relationships. According to Socioemotional Selectivity Theory (Carstensen, 2006; Carstensen *et al.*, 1999), as people grow older, their future time horizons shrink, and they begin to place increasing value on socio-emotional goals. Thus, older workers become motivated to seek and maintain supportive social relationships to meet emotional goals.

A review of the literature on age and social support is inconclusive about this link. In a study of how workers cope with stress and strain across the lifespan, Osipow and Doty (1985) found no differences in workers' propensity to use social support as a stress-related coping mechanism. Similarly, James *et al.* (2011) found that workers of all ages were more engaged in their work if they felt that their supervisor was supportive and cared for their well-being. However, additional studies suggest that support may be especially pertinent to older workers' skill development, psychological well-being and life satisfaction (see Antonucci *et al.*, 1990; Siebert *et al.*, 1999). In addition, Armstrong-Stassen and Schlosser (2011) found that older workers will tend to remain with their

organization if their organization conveys that it values their contributions and fosters a strong sense of belonging.

Current research has not addressed the role of age in the relationship between coworker support and career outcomes associated with derailment. This extension of the literature is important because differences exist in the way older and younger workers experience life and work, due to changes in experience, abilities, personality, needs, motives, values, and emotional regulation across the lifespan (e.g., Kanfer and Ackerman, 2004; Roberts *et al.*, 2006). First, older managers may have greater work and life demands than younger managers, due in part to more stressful life events (e.g., death of family members and loved ones, divorce, midlife transitions, accumulated debt, age discrimination, growing technical skill gaps). Second, compared with younger managers, the emotional and cognitive complexity of their work demands may be higher for older managers, making them more vulnerable to the effects of chronic stress and resource depletion (Hobfoll and Wells, 1998; Treadway *et al.*, 2005). Alternatively, those younger in age are often perceived as more independent and more resourceful than their older counterparts (Glass, 2007). Their skills are current and their social networks outside of work are likely to be more robust. They may perceive a lack of social support at work as less threatening to their well-being and more of a challenge to overcome. Third, because older workers place greater value on socio-emotional goals, social support may be more influential to older managers' ability to cope with the demands of their leadership roles. Based on the previous discussion of age differences with regards to resources:

Hypothesis 2: Age will moderate the relationship between coworker support and behaviors that predict derailment, such that for older managers, this relationship will be stronger.

METHOD

Participants and Procedures

Data were from 329 practicing managers (hereafter known as "participants") and their bosses. The 329 participants represented more than 100 different organizations and several different industries (e.g., finance, health, manufacturing, government) in the United States. All participants were taking part in an executive leadership development program with a vendor who specializes specifically in executive education and leadership development, and all data were gathered before the program started. Each participant's employing organization sent the participant to the leadership development program. Demographic information from participants can be found in Table 1.

Measures

As part of the developmental initiative, participants provided self-ratings of their perceptions of coworker support. In addition, each participant asked their own boss to answer questions concerning the participant's display of behaviors that predict derailment. Feedback on all of these items was given back to participants during their leadership development program.

Coworker support. Participants answered five items that measured coworker support ($\alpha = 0.77$ for this study) from the Campbell Organization Survey (COS; Campbell, 1990). The instrument instructs participants to respond based on a six-point Likert-type scale (1 = *Strongly Disagree* to 6 = *Strongly Agree*). An example item is: "The people I work with treat me in a warm and friendly manner."

Behaviors that predict derailment. This study used boss ratings from BENCHMARKS® (McCauley and Lombardo, 1990). Scores were averaged from 40 items ($\alpha = 0.97$ for this study) in a section of the assessment specifically pertaining to five behaviors that limit or stall a person's career (e.g., problems with interpersonal relationships, difficulty building and leading teams, difficulty changing and adapting, failure in meeting business goals and objectives, and too narrow functional orientation). The 40 items together have been shown to "differentiate promotable managers from nonpromotable managers" (Lyness and Judiesch, 2008: 793). Bosses rated participants on a five-point scale with 1 = *strongly disagree* and 5 = *strongly agree*. Sample items included "Is overwhelmed by complex tasks," and "Is dictatorial in his/her approach." High scores (closer to 5) are more indicative of a manager displaying behaviors that predict derailment.

Age. Each manager was asked their age (in years). Age was used as a moderator variable in testing Hypotheses 2. The average age of managers in this sample was 44.55 (SD = 7.24) with a range from 27 to 62 years.

Control variables. Several control variables were used to provide a stronger test of the hypotheses. Gender was used as a control variable (0 = Male, 1 = Female) because previous research has shown that differences exist in the level of coworker support reported by men and women (Schieman, 2006) and because gender may bias managerial outcomes (Lyness and Heilman, 2006). In addition, the human capital measures of education (0 = High School, 1 = Associates, 2 = Bachelors, 3 = Masters, 4 = Doctorate or Professional), and job and organizational tenure (both continuous variables, measured in years) were controlled for because these variables may affect perceptions of managerial outcomes (e.g., Judge *et al.*, 1995). Finally, because age may be confounded with organizational level (i.e., older managers may be in higher organizational levels than younger managers), managerial level (0 = Middle-level manager, 1 = Upper-middle-level manager, 2 = Executive) was also controlled.

RESULTS

Means, standard deviations, and correlations among the variables are found in Table 1. As expected, there is a negative correlation between coworker support and behaviors that predict derailment ($r = -0.23, p < 0.01$) suggesting that coworker support and behaviors that predict derailment are negatively related. Findings also reveal a positive correlation between coworker support and age ($r = 0.22, p < 0.01$) and a negative correlation between behaviors that predict derailment and age ($r = -0.11, p < 0.05$). To test Hypotheses 1 and 2, moderated hierarchical regression analyses were performed using Baron and Kenny's (1986) framework, using a two-tailed alpha test at $p < 0.05$.

Table 1
Means, Standard Deviations, and Correlations Among Variables

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Gender ^a	0.28	0.45	--							
2. Level ^b	1.38	0.71	-0.18**	--						
3. Job Tenure	3.38	4.22	0.06	-0.01	--					
4. Organizational Tenure	12.22	10.05	-0.19**	0.27**	0.03	--				
5. Education ^c	2.63	0.80	-0.22**	0.16**	-0.04	0.15**	--			
6. Coworker Support	4.81	0.68	-0.10	0.20**	-0.02	0.24**	0.19**	--		
7. Age	44.55	7.24	-0.13*	0.41**	0.09	0.42**	0.18**	0.22**	--	
8. Behaviors that predict derailment	1.54	0.54	-0.01	-0.01	0.14*	-0.22**	-0.14*	-0.23**	-0.11*	--

Note. All predictor terms in this table are based on the original, uncentered variables. ^a 0 = Male, 1 = Female. ^b 0= Middle-level managers, 1 = Upper-middle-level managers, 2 = Executives. ^c 0= High School, 1 = Associates, 2 = Bachelors, 3 = Masters, 4 = Doctorate/Professional. Job Tenure, Organizational Tenure, and Age are measured in years.
 p* < 0.05. *p* < 0.01.

The results of the analyses are presented in Table 2. After accounting for the control variables, perceived coworker support was statistically significant and negatively related to behaviors that predict derailment (Table 2, Step 2 $\beta = -0.19$, $p < 0.01$) providing support for Hypothesis 1. Managers who reported higher coworker support received lower ratings of behaviors that predict derailment by their boss. Coworker support explained 3% of the variance in boss ratings of behaviors that predict derailment after controlling for gender, organizational level, job tenure, organizational tenure, and education.

With regard to Hypothesis 2, results indicated a statistically significant relationship between the interaction term and boss ratings of behaviors that predict derailment (Table 2, Step 4 $\beta = -0.12$, $p < 0.05$). In addition, tests of the ΔR^2 (via the ΔF statistical test) showed the interaction term explained a statistically significant increment in variance in derailment ratings (0.02, or 2%). Caution should be used in interpreting these results, as the amount of variance was small, yet typical and consistent with interaction terms in field settings such as the present study (cf., Champoux and Peters, 1987; Evans, 1985).

Table 2
Hierarchical Moderated Regression Analysis of Coworker Support and Age on Behaviors that Predict Derailment

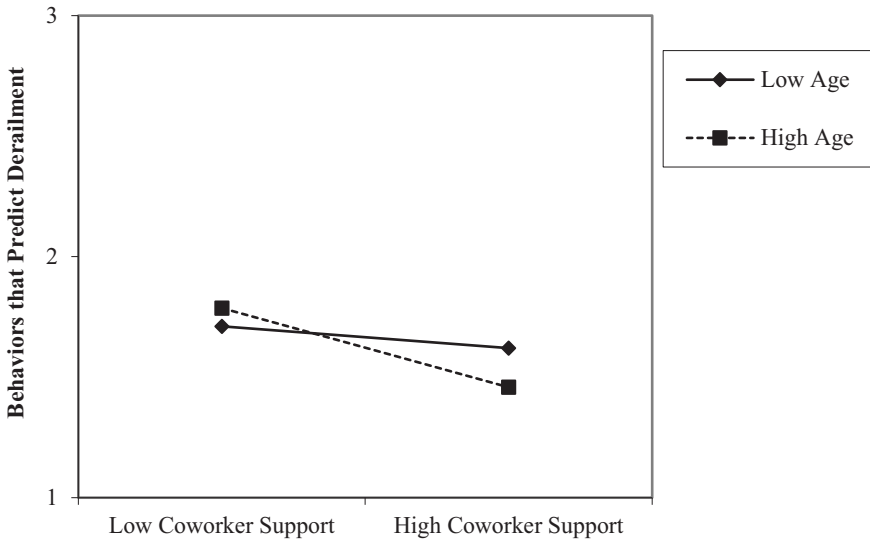
Variable	Step 1 β	Step 2 β	Step 3 β	Step 4 β
Gender	-0.07	-0.08	-0.08	-0.07
Level	0.06	0.09	0.10	0.11
Job Tenure	0.14**	0.14**	0.14**	0.14**
Org. Tenure	-0.24**	-0.20**	-0.19**	-0.19**
Education	-0.13*	-0.10	-0.10	-0.10
Coworker Support		-0.19**	-0.19**	-0.20**
Age			-0.03	-0.04
Support x Age				-0.12*
ΔR^2	0.09	0.03	0.00	0.02
ΔF	6.34*	11.60**	0.27	5.08*
<i>df</i>	5,323	1,322	1,321	1,320
R^2	0.09	0.12	0.12	0.14
Adjusted R^2	0.08	0.10	0.10	0.11
Overall F	6.34*	7.39**	6.35**	6.27**
<i>df</i>	5,323	6,322	7,321	8,320

Note. All continuous predictor variables are centered around their respective mean.

* $p < 0.05$. ** $p < 0.01$.

Figure I depicts the relationship between perceived coworker support and boss ratings of behaviors that predict derailment at high and low levels of age (one standard deviation above and below mean). Coworker support had little influence on behaviors that predict derailment for younger managers (simple slope = -0.07, $t = -1.22$, $p = 0.223$). For older managers however, the relationship between coworker support and behaviors that predict derailment was negative and statistically significant (simple slope = -0.24, $t = -3.92$, $p < 0.01$). Although complete moderation was unexpected, these results provided evidence to support Hypothesis 2 that the relationship between coworker support and behaviors that predict derailment is stronger for older managers.

Figure I
The relationship between coworker support and boss ratings of behaviors that predict derailment at high and low levels of age



DISCUSSION

The findings of this study extend previous research on the importance of coworker support in its relationship to behaviors that predict derailment and substantiate previous research linking coworker support with a variety of positive outcomes for employees (e.g., Chao *et al.*, 1994; Hurlbert, 1991). A key contribution of this study is the finding that age may affect the relationship between coworker support and behaviors that predict derailment. That is, among older managers, those that reported greater support

from coworkers displayed fewer behaviors that predict derailment. On the one hand, this finding isn't surprising. Research shows that workers over age 50 strongly desire constructive relationships, although they may have less of them than their younger counterparts. This might explain why the presence of socially supportive relationships at work matter for older managers' general well-being and performance. However, this doesn't explain why younger managers did not see the same buffering effect from coworker support. Research on socially supportive relationships suggests that there may be times or conditions when social support is not at all helpful, or that it may hurt. A reverse buffering effect for support can be found when coworker help is not wanted, when coworkers dwell on the negative, when support makes the recipient feel inadequate or incompetent, or when coworkers themselves are a source of stress or frustration (Beehr *et al.*, 2010). Future research should take a more nuanced examination of how leaders of different ages use and benefit from socially supportive coworkers on the job.

While participants in this study reported on the supportiveness of their coworkers, it is unclear from this study whether older leaders have a qualitatively different experience with coworker support (e.g., maybe their peers are older and have more to offer in constructive feedback) or if they simply benefit more from working in a supportive environment because of age differences in work-related needs, values, attitudes, or motivations. Previous research on COR and ageing at work provides some theoretical justification for the study of support as a means to reduce age-related performance declines in the workplace (Treadway *et al.*, 2005). As resources in one's personal life change, older workers may depend more on social support from work to protect them from aversive events and situations (Hansson *et al.*, 1997; Nahum-Shani and Bamberger, 2011; Siebert *et al.*, 1999). For example, having supportive coworkers may serve to shrink the age gap between older leaders and followers, putting leaders more "in touch" with those they lead. Supportive coworkers may also buffer the potential effects of adverse events like age discrimination, growing gaps in technical skills, and the loss of other important resources (e.g., loss of friends and family members, declining health).

Further research is needed to gain a deeper understanding of how resources are interpreted and used by younger and older managers. Several foundational theories in lifespan development (Baltes and Baltes, 1990; Kanfer and Akerman, 2004) hint to underlying processes, including differences in work motives, emotion regulation, and optimization and compensation strategies between young and older workers. These lifespan developmental theories lend support to the prioritization of resources like socially supportive relationships during later life. Socioemotional Selectivity Theory (Carstensen, 2006; Carstensen *et al.*, 1999) posits that while younger workers prioritize knowledge-related goals, older workers prioritize socio-emotional goals. Thus, compared with younger managers, older managers may be more likely to seek, utilize, and value supportive relationships at work. Alternatively, younger workers may prefer resources that provide knowledge acquisition. Moving away from a general study of coworker support and towards a more nuanced study of the type of support sought by older and younger workers, (be it information, appraisal, feedback, belongingness, or tangible support), could be helpful in predicting how managers of various ages choose to utilize work-related resources as support to influence work or managerial outcomes.

Practical Implications

Contemporary organizations are made up of workers from a wide range of ages, from those in their 20s to those in their 60s and sometimes older. An increasing number of older workers in the current workforce suggests that attending to the needs, values, and motives of older managers is important and will pose new challenges for organizations. For business continuity, organizations must focus on ways to encourage older managers to remain in the workforce until younger managers are trained to take their place. To remain competitive during this transition, organizations will need to understand the potentially different demands placed on managers of different ages as well as the different resources which are beneficial to managers of different ages (Witt *et al.*, 2004). Organizations should continue to focus time and energy on supporting older managers, particularly in light of the moderating effects of age in the current study. The mechanisms underlying age differences in the efficacy of coworker support may include differences in perceptions of reciprocity or social exchange at work. Organizations and managers alike may benefit from fostering positive and cohesive relationships at work, and establishing policies that reward prosocial behavior and teamwork (Armstrong-Stassen and Schlosser, 2011).

Two strategies have typically been employed to address derailment: selection and development. Selecting the right individuals to promote to leadership positions means selecting for potential rather than current performance as an individual contributor. However, no matter how robust the selection procedures, when managers are thrust into a new role with greater demands, continued development is needed to ensure they are successful. Clearly, leadership development training is important; educating new leaders about the importance of seeking social support in their new role is strongly encouraged. As they move from individual contributors to team leads, managers must learn to refocus on the “we” and not the “me” (Gentry, 2016). Coworker support represents a very specific type of developmental support from which managers should draw to avoid derailment. Affinity groups, peer mentoring, and other formal opportunities for the development of significant and supportive coworker relationships could be helpful in reducing the likelihood of derailment. Alternatively, informal coworker relationships may end up being more supportive, yielding better outcomes. Research should be done to determine the relative effectiveness of these types of support.

Limitations and Future Research

Findings should be interpreted in light of limitations. First, the measure of behaviors that predict derailment used in this study was not empirically linked to actual derailment. Unfortunately, much like the construct of turnover, the nature of this construct makes it difficult to measure among current employees. Future studies might consider actual terminations or turnover, or other career mobility outcomes such as changing organizations and employing firms, or occupational changes that require new skills or education (Feldman and Ng, 2007).

Second, because age may be correlated with changes in personality (Roberts *et al.*, 2006), self-perceptions of age (i.e., subjective age; Barak and Stern, 1986), generational cohort/life experiences and contextual variables such as job level, job demands, or job complexity (Truxillo *et al.*, 2012), future research should control for these variables when

trying to explain the needs, motives, and strategies used by workers and how these influence the relationship between social support and behaviors that predict derailment. The current measure of coworker support does not capture the number, type, or proximity of coworkers who could provide support. Future research might explore the importance of various sources of coworker support. For instance, the sphere of coworkers may include direct reports, peers or same level managers, friends, formal or informal mentors and in some cases, customers or suppliers, and these types of coworkers may provide different types of support, including reciprocity, friendship, coaching, and feedback.

Finally, this study used cross-sectional data from participants in a leadership development program. Causal attributions and generalizations should be made with caution. One cannot rule out the possibility that, for instance, coworker support may follow, rather than predict, whether managers display behaviors that predict derailment. Future research should consider longitudinal designs that follow the careers of managers, accounting for variables at various time periods to make more formal causal statements.

Conclusion

Social support is an essential part of a person's ability to grow, develop, and be successful in his or her job and career. Results of this study suggest that, at least among older managers, those who felt support from their coworkers were also rated as being less likely to display behaviors that predict derailment. With the number of persons aged 55 or older expected to make up nearly one-quarter of the United States labor force by 2024 (Morisi, 2016), organizations that look for ways to foster supportive relationships among older managers at work are likely to see positive benefits in the way of decreased derailment potential or failure.

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