# EFFECTS OF GOAL ORIENTATION AND TASK COMPLEXITY ON AUDIT JUDGMENT PERFORMANCE

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*This study examined the predictive effects of goal orientation and task complexity on audit judgment performance. We hypothesized that (a) learning goal orientation would relate positively with audit judgment performance, (b) performance-avoidance goal orientation and task complexity would relate negatively with audit judgment performance, and (c) performance-approach goal orientation would interact with task complexity to predict audit judgment performance. Auditors from small-sized and medium-sized audit firms (N = 168) participated in our field study by performing an internal control audit task and completing a questionnaire. Hierarchical regression results indicated that learning goal orientation, performance-avoidance goal orientation, and task complexity related to audit judgment performance in the predicted direction. In addition, performance-approach goal orientation interacted with task complexity such that performance-approach goal orientation related positively to audit judgment performance among auditors who performed a low-complexity task but not among those who performed a high-complexity task.*

***Keywords:*** *goal orientation, task complexity, audit judgment performance.*

## Introduction

Goal orientation – one's goal preferences in achievement situations – has become one of the most significant topics in the educational, psychological, and organizational research literature (DeShon and Gillespie, 2005; Payne, Youngcourt, and Beaubien, 2007). Goal orientation provides the mental framework that individuals use to interpret and respond to achievement and failure situations (Dweck and Leggett, 1988) and is a useful individual difference construct for understanding learning, training, and performance outcomes (Zweig and Webster, 2004).

Although much of the research on goal orientation has used a two-dimensional framework, recent research (e.g., Porath and Bateman, 2006; Schmidt and Ford, 2003) has focused on three dimensions of dispositional goal orientation: learning, performance-approach, and performance-avoidance. The body of evidence generally suggests that high levels of learning goal orientation and low levels of performance-avoidance goal orientation are related to favorable performance outcomes (e.g., learning, academic, and task performance), and performance-approach goal orientation does not adversely affect performance (see Payne et al., 2007 for a recent meta-analytic review). Research relating goal orientation to work-related performance using an employee sample, however, is still limited (Steele-Johnson, Beauregard, Hoover and Schmidt, 2000). Therefore, this study hopes to contribute to the goal orientation literature by using a field study of auditors to investigate the effects of goal orientation on audit judgment performance. This is consistent with calls in the accounting literature for more studies relating dispositional traits and audit judgment (Iskandar T.M. and Iselin, 1999; Abdolmohammadi, Searfoss and Shanteau, 2004).

Auditors carry out audit tasks of varying complexity ranging from simple and routine to complex ones that require different levels of knowledge, experience, and ability to perform (Bonner, 1994). Because task complexity can impact on auditors' performance of audit tasks, this variable has received significant attention in the audit judgment and decision making literature (e.g., Abdolmohammadi and Wright, 1987; Chung and Monroe, 2001; Mohd-Sanusi and Iskandar, 2007; Moreno and Bhattacharjee, 2003). Few studies in audit research, however, have examined how task complexity interacts with auditor traits to affect performance. Given Payne et al.'s (2007) recent call for research on how task characteristics such as task complexity might moderate the goal orientation–performance relationship and taking into account meta-analytic evidence that dispositional performance-approach goal orientation is not directly related to performance, we examined the moderating effect of task complexity on the relationship between performance-approach goal orientation and audit judgment performance. We know of no prior study that has tested this explicitly. In sum, the purpose of the present study is to examine the direct as well as interactive effects of goal orientation and task complexity on audit judgment performance.

## Background and Hypotheses Development

### Effect of Task Complexity on Performance

Task complexity has become an important variable in research on goal setting, decision making, and performance (Maynard and Hakel, 1997). In the case of an audit environment, it is important to study task complexity because the complexity of a task may impact on audit judgment performance, and an understanding of the complexity of different audit tasks can help managers make better task assignment and training decisions (Bonner, 1994).

According to Wood (1986), task complexity has three dimensions: component complexity (number of distinct acts and information cues), coordinative complexity (type and number

of relationships among acts and cues), and dynamic complexity (changes in acts and cues and the relationships among them). In brief, task complexity refers to the number of different attributes in a task and the relationships among these attributes. Relative to simple tasks, complex tasks require more personal resources (e.g., attentional resources, information-processing capacity, effort, and persistence) to be expanded in performing them (Bandura, 1986; Chen, Casper and Cortina, 2001). As task complexity increases and exceeds a person's available resources, performance should decline (Kanfer and Ackerman, 1989; Yeo and Neal, 2004). In addition, a complex task may trigger apprehensions of failure and lower employees' beliefs in their ability to accomplish the task. The lower these self-efficacy beliefs, the lower the effort and persistence and, hence, performance (Bandura, 1986; Locke and Latham, 1990). Finally, Bonner (1994) argued that as task complexity increases, people use easier, non-compensatory strategies that lead to lower quality judgments and decisions.

There is also research evidence to suggest that task complexity is negatively related to task performance (e.g., Barron and Harackiewicz, 2001; Finucane, Mertz, Slovic and Schmidt, 2005; Mangos and Steele-Johnson, 2001; Maynard and Hakel, 1997). One study, for example, found subjective task complexity to be negatively related to student performance on a class scheduling task through the mediating effects of self-efficacy (e.g., Mangos and Steele-Johnson, 2001). Another study found both objective and subjective task complexity to be negatively related to student performance on a work scheduling task (e.g., Maynard and Hakel, 1997). Therefore, we propose the following hypothesis:

H1: Task complexity will be negatively related to audit judgment performance.

## Effects of Goal Orientation on Performance

The concept of goal orientation, which is based on achievement motivation theory, originated from the educational and child development literature (Dweck, 1986; Dweck and Leggett, 1988). It has since become one of the most frequently studied motivational variables in applied psychology (DeShon and Gillespie, 2005). Although goal orientation was originally conceptualized as a unidimensional construct, the current approach is to view it as a multidimensional construct. Also, although goal orientation has been conceptualized as both a state and a trait, it is most often conceptualized and measured as a trait variable (Payne et al., 2007). Therefore, in this study, we adopt the three-dimensional framework endorsed by DeShon and Gillespie (2005) and define goal orientation as a "stable pattern of cognition and action that results from the chronic pursuit of a mastery-approach, performance-approach, or performance-avoid goal in different situations over time" (p. 1115). People with a mastery or learning goal orientation focus on developing their competence by acquiring new skills, mastering new situations, and learning from experience; those with a performance-approach goal orientation focus on demonstrating normative competence and gaining favorable judgments from others; and those with a performance-avoidance goal orientation focus on avoiding situations that might showcase their lack of competence or result in negative judgments from others (VandeWalle, 1997; VandeWalle, Brown, Cron and Slocum, 1999; VandeWalle, Cron and Slocum, 2001).

In general, a learning goal orientation is posited to have beneficial effects on performance, and this contention is supported by both theory and empirical evidence. Theoretically, because people with a learning goal orientation are focused on developing their competence, they take an intrinsic interest in the tasks they perform (Barron and Harackiewicz, 2001; Pintrich, 2000); therefore, they should be more task engaged than those without such an orientation. In addition, people with an inclination for developing their competence are expected to devote more resources (e.g., attention, effort, persistence) and use more effective, elaborative strategies in performing their tasks relative to those who are not so inclined or who are more concerned with demonstrating their competence (Dweck and Leggett, 1988; Ford, Smith, Weissbein, Gully and Salas, 1998). Even when faced with a difficult task, learning goal-oriented people would respond with increased effort, persistence, and strategizing because they are likely to view such a task as challenging and an opportunity for growth and development (Button, Mathieu and Zajac, 1996; VandeWalle et al., 2001). Past studies have found learning goal orientation to be positively related to effort (e.g., Fisher and Ford, 1998; Stevens and Gist, 1997) and use of metacognitive strategies (e.g., Schmidt and Ford, 2003). Greater effort, perseverance, and use of effective strategies generally lead to higher performance (Bandura, 1993; Locke and Latham, 1990).

Empirically, past research on goal orientation has found learning goal orientation to be positively related to various performance outcomes including academic performance (e.g., Button, et al., 1996; Phillips and Gully, 1997), training performance (e.g., Ford et al., 1998), task performance (e.g., Bell and Kozlowski, 2002), sales performance (e.g., Porath and Bateman, 2006; VandeWalle et al., 1999), and job performance (e.g., Janssen and Van Yperen, 2004). A recent meta-analysis also found trait learning goal orientation to be significantly related to learning performance and state learning goal orientation to be related to job performance (e.g., Payne et al., 2007). Within the accounting environment, one study found management accountants with a learning orientation to be more likely to become involved in the management decision process (Coad, 1999). Therefore, on the basis of the theoretical and empirical arguments forwarded above, we propose the following hypothesis:

H2a: Learning goal orientation will be positively related to audit judgment performance.

In contrast with a learning goal orientation, a performance-avoidance goal orientation is posited to have detrimental effects on performance. This is because performance-avoidance goals are grounded in low competence expectancies and fear of failure, which elicit threat appraisals and evaluative anxiety (Elliot and Church, 1997). These cognitive and affective mechanisms, in turn, undermine intrinsic motivation triggering responses – such as task distraction (e.g., diverted by off-task thoughts), task disengagement (e.g., withdrawal of effort), task avoidance (e.g., procrastination), and task withdrawal (e.g., give up altogether) – that are detrimental to performance (Pintrich, 2000). There is research evidence indicating that performance-avoidance goal orientation is positively related to anxiety, and anxiety adversely affects performance (e.g., Elliot and McGregor, 1999). Performance-avoidance goal orientation has also been demonstrated to be related negatively to self-efficacy (e.g., VandeWalle et al., 2001). Self-efficacy, in turn, has been shown to be a strong predictor of performance, with lower self-efficacy resulting in lower performance (see Stajkovic and Luthans, 1998 for a meta-analytic review).

Given the above arguments and the fact that past studies have shown performance-avoidance goal orientation to be negatively related to learning and task performance (see Payne et al., 2007 for meta-analytic review), we expect performance-avoidance goal orientation to have a uniformly negative effect on audit judgment performance. Accordingly, we propose the following hypothesis:

H2b: Performance-avoidance goal orientation will be negatively related to audit judgment performance.

Compared with learning goal orientation and performance-avoidance goal orientation, evidence on the effects of performance-approach goal orientation on performance is more equivocal, and recent meta-analytic evidence suggests that dispositional performance-approach goal orientation has no direct effect on performance. Unlike learning goal orientation (which is grounded in achievement motivation) and performance-avoidance goal orientation (which is grounded in fear of failure), performance-approach goal orientation is a more complex form of regulation in that it is grounded in both achievement motivation and fear of failure and thus can serve both approach and avoidance motivational functions (Elliot and Church, 1997). As a result of these conflicting processes, it is less meaningful to talk about a direct effect of performance-approach goal orientation on performance because such an effect is contingent on which of the two regulatory mechanisms is operating at any given time.

Therefore, in this study, we do not forward any hypothesis relating performance-approach goal orientation directly to audit judgment performance. Instead, because we believe the relationship between performance-approach goal orientation and performance is an indirect one (involving moderating mechanisms), we propose that performance-approach goal orientation will interact with task complexity to predict audit judgment performance, as discussed in the following section.

### Interactive Effect of Performance-approach Goal Orientation and Task Complexity

As highlighted earlier, both achievement and fear of failure motives underlie performance-approach goal orientation, and whether or not this orientation will lead to performance depends on which motive is activated. In achievement situations that present a fail-proof opportunity to demonstrate competence (e.g., an easy task situation), achievement motivation is activated leading to enhanced performance. In achievement situations that present a threat to the demonstration of competence (e.g., a complex task situation), fear of failure is activated leading to impaired performance. Therefore, performance-approach goal oriented people are likely to do better on low-complexity tasks than on high-complexity ones.

People who are performance-approach goal oriented, because of their preference for demonstrating and validating their competence, are likely to prefer easy achievement situations that ensure positive evaluations of their capabilities (Kozlowski et al., 2001). They seek tasks on which success is likely and avoid or withdraw from tasks in which success is unlikely (Bell and Kozlowski, 2002). Because complex tasks are associated with

a higher risk of failure, performance-approach goal oriented people are likely to avoid or withdraw from these tasks, preferring to engage in less complex tasks.

Also, although performance-approach goal orientation is focused on demonstrating competency and should, therefore, result in good performance, the concern with competency is more about superficial demonstration rather than substantive competency development (VandeWalle et al., 2001). Such an orientation is associated with less on-task effort and less use of complex strategies (e.g., Fisher and Ford, 1998). A superficial focus will be sufficient for simple tasks but not for complex tasks. For example, when tasks are simple, surface processing and use of familiar strategies may be all that is needed to achieve the needed level of performance; when tasks are complex, deep-level processing and use of more elaborative strategies would be needed for successful performance.

Finally, another possible explanation for why performance-approach goal oriented people are less likely to perform well on complex tasks is that people with this orientation are likely to feel pressured to perform well immediately. This may lead them to focus more on getting immediate results by relying on the most obvious strategy rather than on determining the best way of performing a task by searching for alternative task-specific strategies. The use of task-specific strategies is more important for performance on complex tasks than on simple tasks (Locke, Durham, Poon and Weldon, 1997; Wood and Locke, 1990).

Although there is no direct evidence demonstrating that task complexity would moderate the relationship between performance-approach goal orientation and audit judgment performance, studies on goal setting have found task complexity to be a consistent moderator of the motivational effects of goals on performance, with the effects being strongest for simple tasks and weakest for complex tasks (e.g., Wood, Mento and Locke, 1987). Additionally, Steele-Johnson et al. (2000) found state goal orientation (experimentally induced: fixed ability and achievement focus vs. changeable ability and mastery focus) to interact with task difficulty to predict student performance in a class scheduling task. They found students in the performance goal orientation condition to be more satisfied with their performance on a simple than on a difficult task. The performance satisfaction of those in the learning goal condition was unaffected by task difficulty. Therefore, on the basis of the theoretical arguments and related research evidence discussed above, we propose the following hypothesis:

H3: The relationship between performance-approach goal orientation and audit judgment performance will be moderated by task complexity. Specifically, performance-approach goal orientation will be positively related to audit judgment performance only for a low-complexity task but not for a high-complexity task.

## Method

### Sample and Procedure

Participants comprised auditors of small- and medium-sized audit firms in Malaysia. A total of 600 survey booklets were distributed to auditors of 100 audit firms (selected

randomly from a list of audit firms registered with the Malaysian Institute of Accountants). Attached to each booklet were a self-addressed, stamped envelope; a token gift; as well as a cover letter stating that the study aimed to examine the performance of auditors in making audit judgment and assuring anonymity and confidentiality. The survey required participants to perform an audit judgment task and respond to several demographic and psychographic items. All participants received the same materials except for the audit judgment task. Half of the survey booklets contained a low-complexity audit task, and the other half contained a high-complexity audit task.

In all, 171 completed surveys were returned for a response rate of about 29%. Three respondents, found in data screening analyses to be univariate outliers, were dropped from the sample. Therefore, the final analytic sample comprised 168 auditors (56 men, 112 women) from 56 audit firms, with about 2 to 10 respondents per firm. Within this final sample, the age of the respondents ranged from 20 to 43 years with a mean of 26.07 years ($SD = 3.93$). On average, respondents had worked in their firms for 2.90 years ($SD = 3.09$) with 92% holding a college degree or professional qualification. The sample of respondents included audit assistants (55%), audit seniors (32%), audit supervisors (9%), and audit managers (4%).

## Task Complexity Manipulation

Task complexity was manipulated as a between-subjects variable using two internal control audit tasks that differed in level of complexity: low vs. high. The low-complexity task (coded –1) required relatively little cognitive effort to perform compared with the high-complexity task (coded 1). The audit tasks were pilot tested on six auditors and five accounting lecturers to ensure that the tasks were realistic and relevant in an audit environment. On the basis of the feedback from the pilot testing, the task materials were revised.

The low-complexity task required participants to review a list of sales and cash transaction audit procedures of a hypothetical company and indicate the audit objective of each procedure by choosing from a list of six audit objectives. The high-complexity task required participants to review a list of misstatements related to cash transactions of a hypothetical company and identify the audit procedures needed to uncover the misstatements by choosing from a list of eight substantive tests. Participants were allowed to select more than one substantive test for each misstatement.

The effectiveness of the task complexity manipulation was assessed by having participants complete a 3-item scale (Cronbach alpha = .94) after the audit judgment task using a Likert scale anchored from 1 (*strongly disagree*) to 7 (*strongly agree*). The statements were "The task required me to coordinate many different things at the same time," "I found this to be a complex task," and "This task was mentally demanding." The score for perceived task complexity was computed by averaging the ratings for the three items. Participants who performed the high complexity task perceived their task to be significantly more complex ($M = 4.98$, $SD = 1.12$) than those who performed the low complexity task ($M = 4.40$, $SD = 1.24$), $t(166) = 3.16$, $p < .01$.

## Measures

*Goal orientation.* Goal orientation was measured using a 12-item scale developed by VandeWalle (2001). Each goal orientation dimension (i.e., learning, performance-approach, and performance-avoidance) was assessed with four items. Responses were made on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items are "I often look for opportunities to develop new skills and knowledge" (learning goal orientation), "I like to show that I can perform better than my co-workers" (performance-approach goal orientation), "I prefer to avoid situations at work where I might perform poorly" (performance-avoidance goal orientation). Ratings on items for each goal orientation measure were averaged to form an overall score for the measure, with higher scores reflecting higher levels of the focal variable. Cronbach alpha reliability for the learning goal orientation, performance-approach goal orientation, and performance-avoidance goal orientation measures were .81, .88, and .75, respectively.

*Audit judgment performance.* Audit judgment performance was determined by the number of correct responses to the audit task questions (computed as percentage scores). The pre-determined answers for the audit tasks were developed after a series of discussion with subject matter experts (two lecturers with audit experience and a senior auditor). For the low complexity task, performance was determined by counting the number of correct answers for audit objectives. For the high complexity task, performance was determined by counting the number of correct choices of substantive tests.

## Data Analysis

The data was checked for violations of the assumptions of normality, linearity, heteroscedasticity, and multicollinearity; no significant problems were evident after three outlier cases (on the learning goal orientation variable) were deleted from the original data set of 171 cases, leaving 168 cases for hypothesis-testing analyses. Hierarchical moderated regression analysis was used to test the study hypotheses. The main effect variables (i.e., learning goal orientation, performance-approach goal orientation, performance-avoidance goal orientation, and task complexity) were entered first, followed by the interaction variable (cross-product of performance-approach goal orientation with task complexity). The variables were mean-centered to reduce the problem of multicollinearity (cf. Jaccard, Turrisi, and Wan, 1990). After the mean-centering procedure, the variance inflation factors associated with each regression coefficient, which ranged from 1.02 to 1.13, were all below the allowable threshold of 10 (cf. Neter, Wasserman and Kutner, 1989), indicating that multicollinearity is not a problem.

The significance of the interaction was determined by examining the significance of the *t* test associated with the interaction term. The interaction effect was plotted using values one standard deviation below and above the mean for both the predictor variable and moderator variable (cf. Cohen and Cohen, 1983). One-tailed tests of significance were used to test the study hypotheses because of the directional nature of the hypotheses.

# Results

## Descriptive Statistics and Correlation Analysis

Table 1 presents the descriptive statistics of the study variables. It can be seen from the results in Table 1 that participants who worked on the low-complexity task outperformed those who worked on the high-complexity task. The performance score (percentage of correct answers) of the low-complexity task group ($n = 79$) ranged from 25% to 100% with a mean of 58%. The performance score of the high-complexity task group ($n = 89$) ranged from 20% to 80% with a mean of 51%. Also, as shown in the last column of Table 1, the study participants reported having a high level of learning goal orientation ($M = 6.18$) relative to performance-approach goal orientation ($M = 5.11$) and performance-avoidance goal orientation ($M = 3.43$).

Table 1: Means and Standard Deviations of Variables

| | **Low-complexity task group ($n = 79$)** | | **High-complexity task group ($n = 89$)** | | **Total ($N = 168$)** | |
|---|---|---|---|---|---|---|
| **Variable** | ***M*** | ***SD*** | ***M*** | ***SD*** | ***M*** | ***SD*** |
| Audit judgment performance | 58.07 | 15.51 | 50.56 | 13.56 | 54.09 | 14.94 |
| Learning goal orientation | 6.22 | 0.74 | 6.13 | 0.76 | 6.18 | 0.75 |
| Performance-approach goal orientation | 5.11 | 1.27 | 5.12 | 1.21 | 5.11 | 1.23 |
| Performance-avoidance goal orientation | 3.54 | 1.13 | 3.33 | 1.25 | 3.43 | 1.19 |

Table 2 presents the zero-order correlations among the study variables. As shown, audit judgment performance correlated negatively with task complexity ($r = -.25, p < .01$) and positively with learning goal orientation ($r = .20, p < .05$) but did not correlate with the two performance goal orientation variables. In addition, performance-approach goal orientation correlated positively with both learning goal orientation ($r = .22, p < .01$) and performance-avoidance goal orientation ($r = .22, p < .01$).

## Regression Analysis

Table 3 presents the results of the hierarchical regression analysis that examined the main and interactive effects of goal orientation and task complexity on audit judgment performance. As shown in the table, all the hypotheses of the study were supported. Specifically, task complexity was negatively related to audit judgment performance ($b = -3.80, p < .001$, one-tailed), providing support for Hypothesis 1. Learning goal orientation

Table 2: Correlations and Scale Reliabilities of Study Variables (N =168)

| Variable | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| 1. Audit judgment performance | – | | | |
| 2. Learning goal orientation | .20* | (.81) | | |
| 3. Performance-approach goal orientation | .13 | .22** | (.88) | |
| 4. Performance-avoidance goal orientation | -.12 | -.15† | .21** | (.75) |
| 5. Task complexity[a] | -.25** | -.06 | .00 | -.09 |

*Note*. Alpha reliabilities are shown in parentheses on the diagonal.
[a]Coded –1 = low-complexity task, 1 = high-complexity task.
†$p < .10$ (two-tailed). *$p < .05$ (two-tailed). **$p < .01$ (two-tailed).

Table 3: Hierarchical Regression Results for the Effects of Goal Orientation and Task Complexity on Audit Judgment Performance ($N$=168)

| | Model 1 | | Model 2 | |
|---|---|---|---|---|
| Variable | *b* | *SE* | *b* | *SE* |
| Step 1: Main Effects | | | | |
| Learning goal orientation | 2.68* | 1.54 | 3.01* | 1.54 |
| Performance-approach goal orientation | 1.56* | 0.94 | 1.49† | 0.94 |
| Performance-avoidance goal orientation | -1.88* | 0.96 | -1.65* | 0.97 |
| Task complexity[a] | -3.84** | 1.10 | -3.80** | 1.10 |
| Step 2: Interaction Effect | | | | |
| Performance-approach goal orientation x Task complexity | | | -1.49* | 0.90 |
| $R^2$ | 0.13 | | 0.14 | |
| Adjusted $R^2$ | 0.10 | | 0.11 | |
| $R^2$ Change | | | 0.01* | |

*Note*. Unstandardized coefficients are reported.
[a]Coded –1 = low-complexity task, 1 = high-complexity task.
†$p < .10$ (one-tailed). *$p < .05$ (one-tailed). **$p < .001$ (one-tailed).

was positively related to audit judgment performance ($b = 3.01$, $p < .05$, one-tailed), and performance-avoidance goal orientation was negatively related to audit judgment performance ($b = -1.65$, $p < .05$, one-tailed), providing support for Hypothesis 2a and Hypothesis 2b, respectively. Finally, the results revealed that the interaction term between performance-approach goal orientation and task complexity was negatively related to audit judgment performance ($b = -1.49$, $p < .05$, one-tailed). As can be seen in Figure 1, the pattern of interaction was as predicted in that the relationship between performance-approach goal orientation and audit judgment performance was stronger (as indicated by the steeper slope) for auditors who worked on the low-complexity task than for those who worked on the high-complexity task. Therefore, Hypothesis 3 also received support.

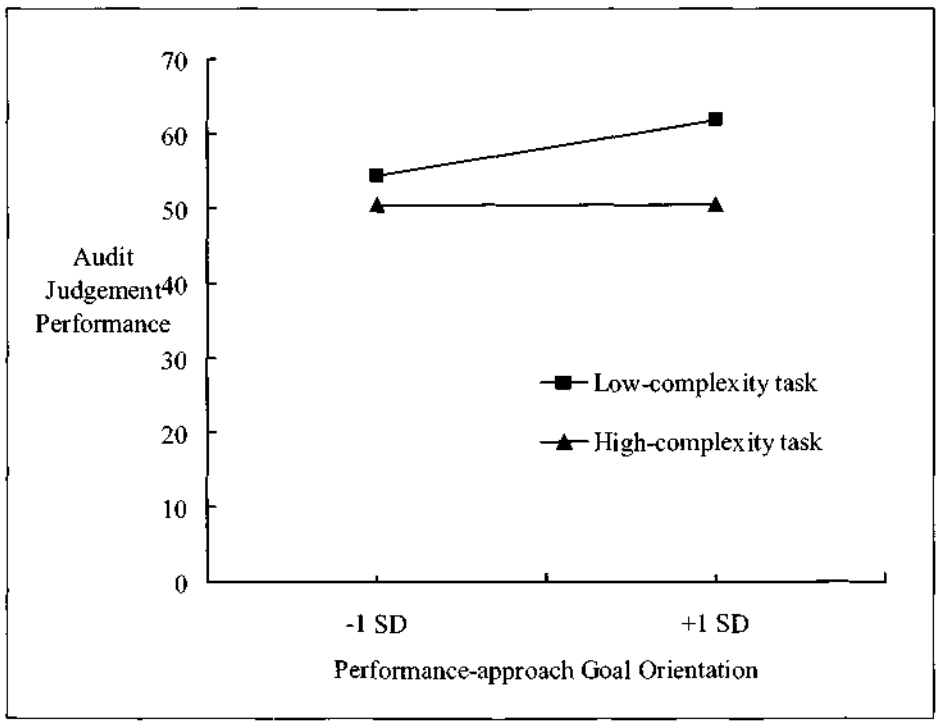


Figure 1: Graphical Representation of the Moderating Effect of Task Complexity on the Relationship between Performance-approach Goal Orientation and Audit Judgment Performance

## Discussion

### Discussion of Findings

The results of this study are consistent with the findings of past research on task complexity and recent meta-analytic research on goal orientation. In line with past findings on task complexity–performance relationships (e.g., Maynard and Hakel, 1997), task complexity was found to be negatively related to audit judgment performance, indicating that auditors performed better on simple tasks than on complex tasks. Obviously, employers cannot be expected to provide employees with only simple tasks. However, they could provide clearer task descriptions and more specific directions for performing tasks. Employers could also act to influence employees' task complexity perceptions by providing employees with the needed skills for performing their tasks and using interventions to enhance employee confidence in their ability to perform their tasks successfully.

Both learning goal orientation and performance-avoidance goal orientation were also found to be significant predictors of audit judgment performance, with the former having positive effects and the latter having negative effects on audit judgment performance. Employers can utilize this knowledge to improve their hiring, training, and retention

practices. Another practical implication of these findings is that employers need to promote learning goals among their employees, encourage their managers to model a learning goal orientation, and promote a continuous learning culture within their organization.

Finally, in line with past evidence (e.g., Payne et al., 2007), performance-approach goal orientation was not directly related to audit judgment performance. However, an indirect relationship emerged when task complexity was considered. Task complexity interacted with performance-approach goal orientation to predict audit judgment performance. Performance-approach goal-oriented auditors outperformed those not so oriented when the audit task was simple. When the task was complex, performance-approach goal orientation was unrelated to audit judgment performance. These results indicate that there is a need to control for task complexity when examining performance-approach goal effects. A practical implication of this finding is that performance-approach goal orientation may not always translate into performance, and employers need to take this into consideration when making task assignment decisions.

## Study Limitations and Future Research

This study has a number of limitations. First, because this study is limited to auditors, the findings may not generalize to other employee populations, necessitating that the study be replicated using employees in other occupations and work settings. Second, the use of two hypothetical audit cases may also limit the generalizability of the study. Therefore, this study needs to be replicated using real internal control audit tasks as well as other types of audit tasks at varying levels of complexity to better understand auditors' performance in audit tasks. Third, this study examined only a three-dimensional model of goal orientation. Some scholars (e.g., Elliot and McGregor, 2001) have suggested that learning goal orientation, like performance goal orientation, may be subdivided into an approach dimension and an avoidance dimension to yield a four-dimensional model of goal orientation. Therefore, future researchers may want to extend this study using such a framework when reliable measures tapping learning-avoidance goal orientation becomes available. Fourth, this study only examined task complexity as a moderator; therefore, future research examining other potential moderators of the goal orientation–performance relationship e.g., time pressure (Durham, Locke, Poon and McLeod, 2000) is needed to further understanding of the conditions under which this relationship may exist. Finally, because this study did not examine any underlying mechanisms for explaining goal orientation and task complexity effects on audit judgment performance, future research should identify and examine process variables that help explain the effects found in this study, particularly the interactive effect. Examining mediating variables for explaining goal orientation–task complexity interaction effects, such as self-efficacy (Bartol, Durham and Poon, 2001; Mangos Steele-Johnson, 2001). This would entail using a moderated-mediation or mediated-moderation framework (cf. Baron and Kenny, 1986; Muller, Judd, and Yzerbyt, 2005).

## Note

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