

Industry versus Task-Based Experience and Auditor Performance

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SUMMARY: While mid-tier audit firms have neither the clients nor resources to replicate the level of industry specialization practiced by the first-tier, their auditors can accumulate both industry and task-based experience. Prior research has confirmed that both forms of experience can improve judgment quality, but has not teased out their relative impact. The purpose of this study is to clarify the comparative influence of industry and task-based experience on the performance of auditors from mid-tier firms. Results from a behavioural experiment confirm the hypothesized importance of industry over task-based experience on auditor judgment quality. Contrary to expectations, mid-tier auditors' performance gains through industry experience are made quickly then tend to level out (i.e. auditors who spend 20 percent of their time auditing clients in the one industry perform as well as those with more industry-based experience). Results suggest mid-tier audit firms can organize their staffing and training to optimize the benefit from industry-based experience.

Keywords: audit quality, industry-based experience, task-based experience

Data Availability: Data and the tasks used in this study are available on request.

INTRODUCTION

Audit quality has never been more important following the collapse of Enron in 2001 and the resulting turmoil in the auditing profession. While the public focus has been largely on listed companies and their mostly first-tier audit firms, mid-tier firms also encompass a significant segment of the audit market.¹ Despite the significance of the mid-tier segment, few studies have investigated audit quality within that tier.

An important quality control device used by first-tier audit firms is industry specialization (e.g., Francis 2004), which is also used in marketing and promotional activities (e.g., Ferguson et al. 2003). Industry specialist auditors are so designated by their firms and spend most, if not all, of their time auditing clients in the one industry setting (Solomon et al. 1999). Behavioural research confirms the value of industry specialization in enhancing auditor judgment quality (e.g., Taylor 2000; Owhoso et al. 2002; Thibodeau 2003; Low 2004; Hammersley 2006). Industry specialist auditors develop sub-specialty industry knowledge via staff training and direct experience when auditing clients in the one industry setting (e.g., Solomon et al. 1999).

Mid-tier audit firms are unable to achieve the same level of industry concentration as first-tier audit firms because their auditors typically work across a variety of industry settings. The audit divisions of mid-tier firms are not set up along industry lines and their staff are not firm designated industry specialists. While the mid-tier lacks the necessary economies of scale to achieve industry specialization, there is scope for their audit staff to accumulate a degree of sub-specialty knowledge via industry-based

¹ The mid-tier are active in the audit of private entities and have increased their share of the listed company audit market (see Johnstone and Bedard 2004, Ettredge et al. 2006, Krishnan et al. 2007).

experience. The accumulation of industry-based experience has long been acknowledged as an important precursor to superior audit judgment quality (Bonner and Lewis 1990; Bedard and Biggs 1991). However, few studies have considered its relevance outside the first-tier.

Another form of sub-specialty knowledge that can enhance auditor judgment quality is gained from repeated exposure to the same task. The evidence suggests that task-based experience can also enhance auditor judgment (e.g., Libby and Tan 1994; Tan and Kao 1999; Thibodeau 2003). When auditors perform the same task whilst moving from one client to the next, whether within the one industry setting or not, they are able to accumulate sub-specialty knowledge via repeated task-based experience.

The empirical research suggests that industry and task-based experience provide opportunities to develop different types of sub-specialty knowledge, both of which can enhance auditor performance (Thibodeau 2003). However, prior studies have not teased out the relative importance of industry and task-based experience in improving auditor performance in a non-industry specialization setting. The mid-tier is not organized around areas of specialization yet their auditors may benefit from their industry and task-based experience. It is important to determine which type of experience best predicts superior auditor performance in a non-specialist setting to inform and aid mid-tier firms in the staffing of their audits and the marketing of their product.

While the literature suggests that both industry and task-based experience will improve auditors' performance, the industry specialization literature would suggest

the pre-eminence of industry-based experience. The first-tier firms have adopted industry specialization as a quality enhancement strategy, which underlines the perceived importance of industry-based experience. In this study we therefore hypothesize that in the mid-tier industry-based experience improves auditor performance by a greater extent than task-based experience. In addition, if industry-based experience is associated with superior performance, we hypothesize that mid-tier auditors' performance will continue to improve with greater exposure to clients within one industry setting.

To test our expectations an experiment was conducted in eight mid-tier firms, adapting a research design common to the industry specialization literature (e.g., Solomon et al. 1999). Participating auditors completed two cases; a research and development case set in the manufacturing industry and an investment case set in the superannuation industry. It is possible for mid-tier auditors to gain industry experience in the manufacturing or superannuation industries, and task experience auditing research and development or investment accounts for clients in various industries.

As expected, mid-tier auditors with industry-based experience are found to outperform those without. Task-based experience has only a marginal impact on auditor performance. The results provide evidence that industry-based experience is a better predictor of superior auditor performance than task-based experience. Contrary to expectations, continued exposure to clients in the same industry, beyond a base of 20 percent, does not result in further improvements in performance. Performance gains in one industry setting are made quickly and then level out.

The next section of this paper contains the background and hypothesis development section. The experiment is then explained, followed by the results and conclusions.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Prior behavioral research finds that industry-based experience is associated with superior auditor performance in first-tier firms (e.g., Bedard and Biggs 1991; Wright and Wright 1997). As the first-tier moved to industry specializations, research has focussed on the performance benefits accruing to auditors who work predominantly within one industry setting (e.g., Solomon et. al. 1999).

Specialists perform better on tasks set within their area of expertise. For industry specialists this superior performance is driven by experience and training gained within an industry context (Bonner 1990; Bedard and Chi 1993; Solomon et al. 1999; Taylor 2000; Owghoso et al. 2002; Hammersley 2006). The literature on task experience suggests that superior performance is gained by repeated experience and feedback in a particular domain (Davis and Solomon 1989; Bonner 1990; Bédard 1989; Bédard and Chi 1993; Libby and Tan 1994; Libby 1995; Tan and Kao 1999; Wright 2001; Thibodeau 2003). It is therefore not general audit experience, but rather sub-specialty experience that drives superior auditor performance (Bonner 1990; Bonner and Lewis 1990; Bedard and Biggs 1991; Bédard and Chi 1993; Libby and Tan 1994; Wright and Wright 1997).

Early researchers predicted that audit experience of any kind would improve performance. This research did not distinguish between general domain knowledge,

which is gained by all auditors (i.e., generic audit knowledge), and sub-specialty knowledge, which is only gained by auditors exposed to, for example, an industry setting or specific tasks (Bédard 1989; Davis and Solomon 1989; Bonner and Lewis 1990; Ashton 1991; Tan and Kao 1999). An important development in the literature was the link between industry-based experience and superior auditor performance in first-tier firms (Bédard 1989; Bedard and Biggs 1991; Wright and Wright 1997). These findings were reported at a time when the first-tier was moving to industry specialization.

Evidence of the benefits of industry specialization include more accurate non-error frequency knowledge (Solomon et al. 1999), more effective assessment of inherent risk levels (Taylor 2000), more effective detection of seeded errors during the review process (Owhoso et al. 2002), the ability to assess audit risk more accurately (Low 2004) and to interpret and complete partial cue patterns (Hammersley 2006). Industry specialization has also been used as a proxy for audit quality (Craswell et al. 1995; Kwon 1996; Hogan and Jeter 1999; Carcello and Nagy 2003; Krishnan 2003; Francis 2004). For example, industry specialist auditors are associated with higher earnings response coefficients, lower discretionary accruals, lower levels of fraudulent reporting and higher audit fees (see a summary of this literature in Francis (2004)).

Task specific experience is another way of improving auditor performance (Marchant 1990; Libby 1995; Tan and Libby 1997; Wright 2001). It improves declarative knowledge (Bonner 1990; Choo and Trotman 1991; Bédard and Chi 1993), error frequency knowledge (Ashton 1991) and meta-knowledge (Bédard and Chi 1993). In a first-tier setting Thibodeau (2003) found that industry specialist experience on

certain tasks can be transferred from one industry setting to another, suggesting that task experience is not necessarily industry bound.

The mid-tier firm environment provides an opportunity to observe the relative impact of industry-based experience and task-based experience on the development of sub-specialty knowledge and auditor performance. In mid-tier firms auditors are not industry specialists as their audit divisions are not set up along industry lines. These auditors build up industry-based experience, rather than specialization, when auditing more than one client within an industry setting. They also build up task-based experience via exposure to the same task in a variety of industry and client settings.

While industry and task-based experience have been found to improve auditor performance (Bonner and Lewis 1990; Bedard and Biggs 1991; Libby 1995; Tan and Libby 1997; Wright 2001, Thibodeau 2003), in this study we predict that recent industry-based experience is a superior predictor of enhanced performance. This expectation is consistent with an extensive literature that finds industry specialization to be associated with superior performance on a range of tasks and the empirical observation that first-tier firms have embraced industry specialization as the pre-eminent quality enhancement strategy.

While the preceding discussion identifies task-based experience as an important determinant of auditor performance, the literature tends to support industry-based experience as the superior determinant of judgement quality. Prior research has not investigated the relative benefits of industry and task-based experience in the mid-tier setting and we accordingly develop the following hypothesis:

H₁: In the mid-tier, industry-based experience is a better predictor of improved auditor performance than task-based experience.

While the literature suggests that industry-based experience enhances auditor performance, an unresolved question is whether increased exposure to clients in the one industry continues to improve auditor performance. The evidence suggests that auditors performance is optimal when industry specialists spend most if not all of their time auditing clients in the one industry setting (e.g., Bedard and Biggs 1991; Wright and Wright 1997; Solomon et al. 1999; Taylor 2000; Owhoso et al. 2002; Thibodeau 2003; Low 2004; Hammersley 2006). Based on this finding, it follows that with more experience within an industry setting auditor performance should continue to improve. However, the extent to which auditor performance improves with increased industry exposure has not previously been investigated. Early research compared the performance of auditors with and without industry experience (see for example Bedard and Biggs 1991; Wright and Wright 1997), but has not investigated the impact on performance of increasing industry-based experience. This issue is particularly important for the management of auditors working in mid-tier firms where there is the opportunity to vary the extent of industry experience. Based on the previous discussion we develop the following hypothesis:

H₂: In the mid-tier, auditor performance is positively related to the extent of recent industry-based experience.

RESEARCH DESIGN

The Experiment

An experiment was conducted in the offices of eight mid-tier accounting firms (BDO, Grant Thornton, HLB Mann Judd, Horwath, Moore Stephens, Pitcher Partners, RSM Bird Cameron and William Buck).² The cases used in the experiment involved tasks common to but not necessarily unique to audit clients in each industry setting (manufacturing and superannuation). The cases were developed with the aid of an expert panel comprising six industry specialist audit partners from three first-tier audit firms.³ Audit partners from each participating mid-tier firm confirmed that the experimental cases reflect the type of tasks their staff may encounter when auditing their firm's clients.

The manufacturing case deals with research and development expenditure. The case comprises some information regarding a client and five questions on how to audit research and development expenditure; in particular, which items from a list provided in the case material could be capitalized and how a government grant should be handled. To answer the problem set in the case correctly, participants require knowledge of the manufacturing industry and various accounting standards. Excerpts from these standards were provided as information cues. While this case is set in the manufacturing industry, it is possible for auditors to gain relevant task experience auditing research and development expenditure for clients in other industry settings.

² A Kruskal-Wallis test was run to compare performance across the eight participating audit firms. The result is not significant ($\chi^2=9.827$, $df=7$, $p>.1$, not tabulated) indicating that there are no significant differences between firm differences.

³ The same cases were used in a first-tier setting to test industry specialist efficiency and effectiveness (Moroney 2007).

The superannuation case deals with the identification of audit procedures necessary to confirm audit assertions concerning investments. To answer correctly the questions set in the case participants require knowledge of the relevant accounting standards and regulations which impacts the reporting of results in financial statements. The information cues provided to participants included excerpts from industry specific accounting standards and regulations. These regulations detail the auditing and disclosure rules particular to superannuation funds. While this case is set in the superannuation industry, it is possible for auditors to gain relevant task experience auditing investments for clients in other industry settings.

An experienced researcher was present when the experiment was conducted in each of the offices of the participating mid-tier firms. A standard introduction and consent form was provided to each participant outlining in broad terms the purpose of the experiment. Using a unique username and password, participants were invited to log on to the internet based program designed by a specialist programmer. After logging on, each participant read an introduction which explained the project in broad terms and how the software was to be used. Participants then read through a practice case and accompanying information cues to familiarise themselves with the format of the software.⁴ The participants then completed the manufacturing and superannuation cases described above. The order of the two cases was randomized between subjects to control for any demand effects and none were found ($F=.268, p>.6$, not tabulated). After completing the cases, participants answered exit questions which were used to measure recent industry and task-based experience as well as the numbers of years they had worked as auditors.

⁴ To save time, participants were asked not to provide an answer for the practice case.

Figure 1 contains a problem solving map (e.g., Hershey et al. 1990) which helps describe how participants moved through each case. The arrows demonstrate a possible route to solving a case. Firstly participants read the case materials, then they could either go to the information menu, where a list of information cues was provided,⁵ or they could elect to provide their answer to the question(s) posed in the case. Participants could move between the case materials, information cues and the solution input screen as frequently as they desired before submitting their final solution for the case.

[Insert Figure 1 Here]

Model

To test hypothesis 1 we estimate the following model:

$$PERFORMANCE = \alpha + \beta_1 IBE + \beta_2 TBE + \beta_3 AE + \varepsilon \quad (1),$$

where

PERFORMANCE = score on the case;

IBE = industry-based experience;

TBE = task-based experience; and

AE = years of audit experience.

The variable *PERFORMANCE* is measured as the degree of completeness of participants' solutions compared to the solution provided by the previously described expert panel of audit partners. Two expert coders individually blind coded each

⁵ Each case came with eight information cues, which included excerpts from accounting standards and industry regulation. The cues did not add any new information to the basic case materials.

participant's solution by comparing it to the model solution. Cohen's Kappa (1960) was 0.9389 for the manufacturing case and 0.9281 for the superannuation case (both are significant at $p < .001$, not tabulated). The greater the consistency between a participant's answer to the model solution, the higher a participant's *PERFORMANCE* score on each case.

Recent industry-based experience (*IBE*) was measured by asking participants to "Please list the proportion of your time over this last year that you spent auditing clients in different industry settings. For example: Insurance (10%), Retail (30%), Superannuation (50%) and Financial Services (10%)" totalling 100% for the year (Bedard and Biggs 1991). To measure task-based experience (*TBE*) participants were asked "Have you had personal experience advising clients about accounting for research and development costs (auditing investments for a superannuation fund)?" To measure audit experience (*AE*), which is included as a control variable, participants were asked "How many years have you worked as an auditor?"

Participants

Partners from the eight participating mid-tier firms nominated the audit staff with sufficient experience to complete the experiment. A minimum of two years audit experience was set to ensure that all participants had sufficient work experience to deal with the case materials. In total 83 auditors with an average 7.1 years audit experience took part in the experiment.

Of the 83 participants, 56 (67%) reported having worked on manufacturing clients and 20 (24%) reported having worked on superannuation clients in the year preceding

the experiment. Eighteen (22%) reported having had no experience in either industry and 11 (13%) reported having had experience with clients in both industries. This means that 45 (54%) participants had experience in only the manufacturing industry and nine (10%) had experience in only the superannuation industry. Thus a total of 54 (64%) auditors had experience in only one industry.

Of the 83 participants, 42 (51%) reported having had audit experience with research and development expenditure tasks and 46 (55%) reported having had audit experience with investment tasks. Twenty one (25%) reported having no experience on either task and 26 (31%) reported having had experience on both tasks. This means that 16 (19%) participants had experience with only the research and development task and 20 (24%) had experience with only the investment task. Thus a total of 36 (43 %) auditors had experience with only one task.

RESULTS

Descriptive Data

The descriptive statistics in Panel A of Table 1 show that auditors with industry-based experience perform better than those with no industry-based experience ($F=18.716$, $p=.000$, one tail) after controlling for audit experience ($F=.004$; $p=.475$ not tabulated). This finding is consistent with prior literature investigating the benefits of industry-based experience in the first-tier prior to industry specialization (Bédard 1989; Bedard and Biggs 1991; Wright and Wright 1997). Panel B of Table 1 shows that auditors with task-based experience outperform those without task-based experience, but the result is only marginally significant ($F=2.722$ $p=.051$, one tail) after controlling for audit experience ($F=.004$; $p=.476$ not tabulated). This finding is

broadly consistent with prior research on task-based experience (see Bonner 1990; Choo and Trotman 1991; Ashton 1991; Bédard and Chi 1993). These descriptive statistics suggest that industry-based experience has a greater impact on auditor performance than task-based experience.

[Insert Table 1 Here]

Industry versus Task-Based Experience (Hypothesis 1)

Both industry and task-based experience are regressed against performance to test hypothesis 1. Results presented in Panel A of Table 2 show that industry-based experience significantly improves auditor performance ($t=4.154, p<.001$) while task-based experience does not ($t=0.504, p>.6$) after controlling for audit experience ($t=-.194, p>.8$). This result supports hypothesis 1 as it indicates that industry-based experience is a better predictor of improved auditor performance than task-based experience.

[Insert Table 2 Here]

The data presented in Panel B of Table 2 provide a between-subjects breakdown of the results for the participants. The results for industry-based experience are significant, whether the auditors have had task-based experience ($t=2.286, p<.02$, one tail) or not ($t=3.715, p<.001$, one tail). This finding highlights that even when auditors have had no task-based experience, they are able to perform significantly better if they have had some industry-based experience. Consistent with the arguments presented in the industry specialization literature (see for example

Solomon et al. 1999), industry-based experience is a valid predictor of superior auditor judgement performance. The results for task-based experience are not significant whether the auditors had industry-based experience ($t=.126, p>.4$, one tail) or not ($t=.770, p>.2$, one tail). If an auditor has had industry-based experience, task-based experience does not further improve performance. Table 2 also shows that those with industry-based experience but no task-based experience (mean = 3.93) outperform those with task-based experience but no industry-based experience (mean = 2.82) ($t=2.175, p<.02$, one tail, not tabulated). Thus, when auditors have either industry-based experience or task-based experience, but not both, it is industry-based experience that is linked with superior performance. This data provide further support for hypothesis 1.

A within-subject analysis was also performed using the results for the 54 participants who reported having industry-based experience in only one industry setting, either manufacturing or superannuation. Their performance on the case set in the industry in which they reported having some industry-based experience was compared to their performance on the other case. Again the results were significant for industry-based experience ($F=37.474; p<.001$, not tabulated) and in the predicted direction. A within-subject analysis was also performed using the results for the 36 participants who reported having task-based experience with the task used in only one case. Their performance on the case which they reported having some task experience was compared to their performance on the other case. Again the results for task-based experience were not significant ($F=2.163; p>.1$, not tabulated). This data provide further support for hypothesis 1.

Extent of Industry-Based Experience (Hypothesis 2)

Hypothesis 2 predicts that auditor performance is positively related to the extent of recent industry-based experience. Performance and the proportion of the year (when greater than zero) spent auditing clients in that industry setting are found to be uncorrelated ($r=.087$; $p>.4$, not tabulated). In Table 3 the results of a regression between extent of industry-based experience (greater than zero) and performance is reported. The results indicate that continued exposure to clients in the same industry setting does not continue to improve performance ($t=0.421$, $p>.6$) after controlling for audit experience ($t=-0.489$, $p>.6$). These results suggest that auditor performance does not significantly improve with increased industry experience. Thus, hypothesis two is not supported.

[Insert Table 3 Here]

Further insight into the association between extent of industry experience and auditor performance is provided in Figure 2. This graph presents descriptive evidence of the link between auditor performance and the extent of recent industry-based experience.⁶ The line is steep early on, indicating that performance gains can be made from spending some time auditing clients in the one industry setting (supporting the findings for industry-based experience in hypothesis one above). However, the line soon flattens. Once auditors spend 20 percent of their year auditing clients in the one

⁶ The graph reports the performance for all participants based upon the proportion of the year spent auditing clients in an industry setting. Of the 166 data points (83 participants completing two cases), 90 had no experience on a case, 24 had spent 1-10%, 20 had spent 11-20%, 17 had spent 21-30%, 5 had spent 31-40%, 3 had spent 41-50% and 7 had spent more than 50% of the preceding year auditing clients in one of the industry settings.

industry, they begin to perform as well as auditors with more industry-based experience.

[Insert Figure 2 Here]

SUPPLEMENTARY ANALYSIS

Recency

As the industry and task-based experience variables are measured quite differently, with industry-based experience being in the prior year and task-based experience being at any time, the results reported here may be unduly impacted by the recency of the experience. One argument against this conclusion is that even when auditors have had no task-based experience at any time the industry-based experience variable is still significant ($t=3.715$, $p<.001$, one tail, from Panel B in Table 2) and yet when auditors have had no industry-based experience the task-based experience variable is not significant ($t=0.770$, $p>.2$, one tail, from Panel B in Table 2).

In an attempt to test whether recency of experience is unduly influencing the results reported in this paper a sensitivity analysis was conducted using the data for the participants with the least number of years of auditing experience. Doing this reduces, but does not remove, the gap between task experience and completion of the experiment. As all participants had at least 2 years audit experience the maximum was set at 5 ($n=68$) and then 6 ($n=94$) years experience. In both instances results were consistent with those reported in the main analysis. Another test was conducted for all participants reporting no industry-based experience and a maximum of 5 ($n=36$) or 6 ($n=53$) years audit experience. Consistent with data reported in Table 2 for no

industry-based experience, task-based experience did not significantly impact performance, for those with the potential to have had the most recent task-based experience.

Industry Setting

Both hypotheses are retested separating the data for the manufacturing and superannuation industry cases. The results for the first hypothesis are generally consistent for both cases (i.e. participants with either industry or task-based experience outperform those without) but industry-based experience is not a significantly better predictor of auditor performance than task-based experience when the data are separated for each case. This result may be explained by the smaller sample sizes that result when the data are partitioned in this way or by the fact that task-based experience is gained across a range of industries in the mid-tier and is not necessarily linked to one industry setting.

For the second hypothesis, consistent with the main analysis, auditor performance does not improve with continued experience beyond the 20% cut-off in both the manufacturing and superannuation industries. The results for the correlation and the regression between performance and extent of industry-based experience (when greater than zero) are insignificant for both the manufacturing and superannuation industries. When charts are prepared for each industry group the results are in the same direction.

SUMMARY AND CONCLUSION

The purpose of this study was to test the relative impact of industry and task-based experience on the performance of auditors from mid-tier firms, and investigate whether increased exposure to clients within an industry setting continues to improve auditor performance. Mid-tier auditors are not designated industry specialists and have varying amounts of experience auditing clients across a range of industry settings. They also have varying amounts of task-based experience which is gained when auditing clients in a variety of industry settings. The mid-tier setting thus provides an opportunity to test the relative impact of industry and task-based experience on auditor performance. While the results relate to auditors within the mid-tier, they apply to non-specialist auditors in all firms across the tiers.

Results from a behavioural experiment confirm the hypothesized importance of industry over task-based experience on auditor judgment quality. Consistent with prior research, individually industry-based experience and task-based experience improve auditor performance. However, when both variables are included in an analysis industry-based experience is found to be a significant predictor of superior auditor performance but task-based experience is not. This evidence provides strong support for the staffing of audits in mid-tier firms along industry rather than task lines. It appears that non-specialist auditors enjoy performance gains when faced with an unfamiliar task within a familiar industry setting but not when faced with a familiar task in an unfamiliar industry setting.

Contrary to hypothesis 2, auditor performance does not improve in proportion to increased industry experience. Findings indicate that increased exposure to clients in the one industry setting does not improve auditor performance beyond a base amount of approximately 20%. Implications for practice are that mid-tier firms would benefit from exposing their staff to clients in the one industry setting for at least 20 percent of the year. Future research might explore quality differential between mid-tier audit firms based on industry experience drawing on the methodology used to test city level specialization (e.g., Francis, Stokes and Anderson 1999).

Limitations

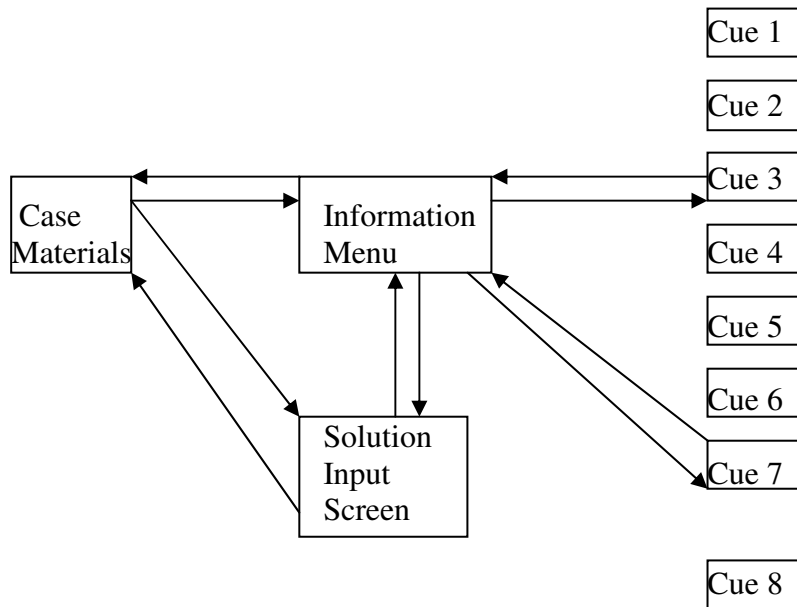
The measures of industry and task-based experience used in this study are relatively simplistic. Industry-based experience was measured as the percentage of the year leading up to the experiment spent auditing clients in different industry settings. This measure does not take into account industry-based experience in prior years. Task-based experience was measured by asking participants whether they had had experience with the task used in each case. This measure does not put task experience in a time frame. Future research might develop more sophisticated measures for these variables. One improvement would be to ask questions about task-based experience gained within and outside of an industry setting.

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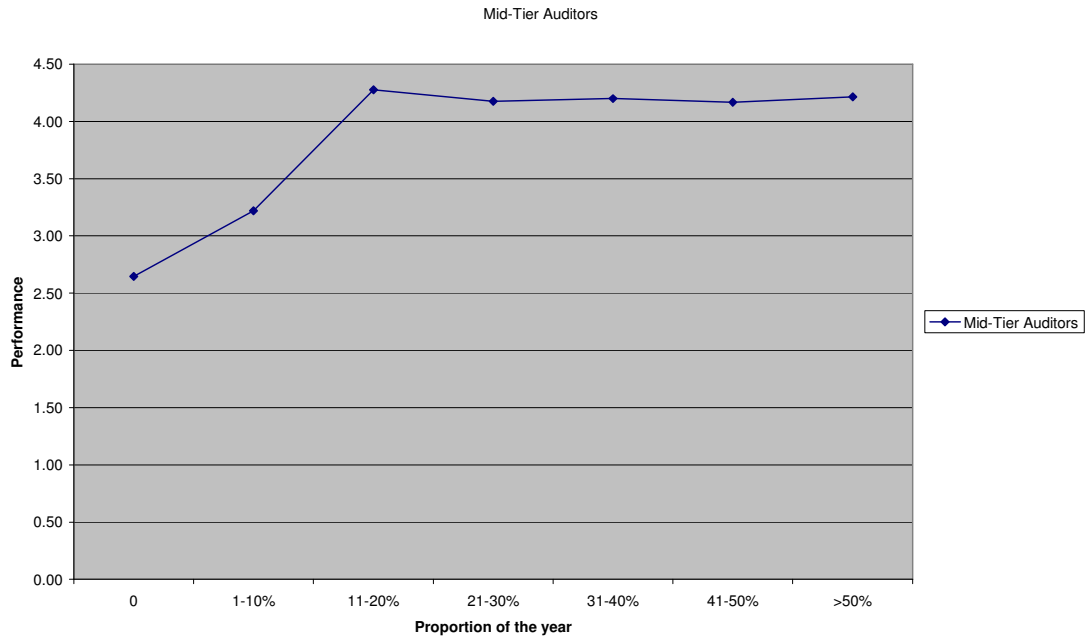
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FIGURE 1
Problem solving process map



Source: Based upon Hershey et al.'s (1990) diagram of The Problem Solving Process Map (p. 89)

FIGURE 2
Performance and extent of recent industry-based experience



Note: Participants who spent more than half the year auditing clients in the one industry are grouped together due to the small number of participants in each category.

TABLE 1
Descriptive Statistics

Panel A: Industry-based experience [Mean (Standard Deviation)]

| Industry-Based Experience (n=76) | No Industry-Based Experience (n=90) | F | p (1-tail) |
|---|--|----------|-------------------|
| 3.90 (1.92) | 2.65 (1.79) | 18.716 | .000 |

Panel B: Task-based experience [Mean (Standard Deviation)]

| Task-Based Experience (n=88) | No Task-Based Experience (n=78) | F | p (1-tail) |
|---|--|----------|-------------------|
| 3.46 (2.16) | 2.96 (1.67) | 2.722 | .051 |

TABLE 2
Tests of H1 – Industry versus Task-Based Experience

Panel A: Performance

| Variable | Beta | t | p |
|---------------------------|-------|--------|------|
| Industry-based experience | .321 | 4.154 | .000 |
| Task-based experience | .040 | 0.504 | .615 |
| Audit experience | -.015 | -0.194 | .846 |

Panel B: Industry and Task-Based Experience [Mean (Standard Deviation)]

| | Industry-Based Experience (n=76) | No Industry-Based Experience (n=90) | |
|---------------------------------------|--|---|----------------|
| Task-Based Experience (n=88) | 3.88 (1.68) <i>n</i> =53 | 2.82 (2.20) <i>n</i> =35 | t=2.286 (.012) |
| No Task-Based Experience (n=78) | 3.93 (1.68) <i>n</i> =24 | 2.53 (1.48) <i>n</i> =54 | t=3.715 (.000) |
| | t=.126 (.450) | t=.770 (.221) | |

TABLE 3
Test of H2 – Extent of Industry-Based Experience and Performance

| Variable | Beta | t | p* |
|-------------------------------------|------|------|------|
| Extent of industry-based experience | .005 | .421 | .675 |

* After controlling for years of audit experience ($t=-.489, p>.6$)