

THE EFFECTS OF EXPERIENCE AND TASK-SPECIFIC KNOWLEDGE ON AUDITORS' PERFORMANCE IN ASSESSING A FRAUD CASE

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Abstract

The objective of this study is to investigate the relationships of auditors' experience, knowledge, and performance. Specifically, it examined whether the task-specific knowledge variable could affect the relationship between the auditor's experience and performance in assessing a fraud. The study hypothesized that task-specific knowledge will improve auditors' performance in a fraud risk task. Additionally, it hypothesized that the combination of experience and fraud training would improve auditors' performance in assessing the task. Using a sample of 64 auditors and 42 students, as expected, the study provided support for the hypotheses.

Key words: Auditors' experience; task-specific knowledge; auditors' performance; fraud.

INTRODUCTION

This study is motivated by several important issues in the judgment and decision making in accounting and auditing area. *First*, one issue which has earned special attention in the literature is the relationships between experience and performance. Prior studies in this area provide contradictory findings. Some studies indicated that experience should be regarded as an important factor on auditors' performance prediction (Butt, 1988; Bonner, 1990; Libby and Frederick, 1990; Choo and Trotman, 1991; Tubbs, 1992; Davis, 1996; Shelton, 1999; Knapp and Knapp, 2001). On the other hand, some studies indicated that there are no differences between experienced auditors and inexperienced auditors on auditors' performance (Ashton, 1974; Ashton and Brown, 1980; Ashton, 1991). These contrary results perhaps can be explained by the consideration of knowledge required to perform the tasks (Frederick and Libby, 1986). Additionally, some studies provided evidence that task-specific knowledge is an important factor to explain the relationship between experience and performance (Frederick and Libby, 1986; Ashton, 1991; Bonner and Lewis, 1990; Bonner, 1990). Hence, this study attempted to provide further evidence of the effect of task-specific knowledge on the relationship between experience and performance.

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Second, most of the studies in the area employed cases other than fraud case in order to measure subjects' performance in their studies. For examples, some studies used a going concern judgment case (Choo and Trotman, 1991; Shelton, 1999) and control risk assessments case (Frederick and Libby, 1986; Bonner, 1990; Davis, 1996) as a performance measure. The use of fraud assessment case as an experimental tool should strengthen the previous results which found that task-specific knowledge can improve the performance of auditors (Bonner 1990) because fraud assessment tasks require specific knowledge to be performed. According to Bologna et al. (1993) specific knowledge, such as accounting and auditing knowledge; fraud knowledge; law and rules of evidence; investigative mentality; psychology; communication skill; computers and information technology is required to perform fraud assessments. Therefore, this study attempted to use fraud assessment case as a dependent variable to measure subjects' performance.

Third, since this study used a fraud assessment case and also since the concern of the public and the regulator regarding auditors' responsibility and ability to assess fraud has increased in recent years, this study is expected to make a contribution to the effort of increasing auditors' performance in dealing with fraud audit. For example, prior results in the area found that training may be useful to improve auditors' performance (Bonner 1990; Libby and Frederick 1990). This study is expected to provide some evidences that task-specific knowledge gained from training can improve auditors' performance.

Additionally, this study tried to investigate the differences between auditors' (experienced and inexperienced) performance and students' performance in assessing fraud case. The involvement of students and auditors as participants of this study is to determine whether experience and task-specific knowledge factors affect participants' performance. According to Ashton and Kramer (1980), if the responses of the two groups are different substantially, one or more of these factors may be important. Since the certain factors can be identified, the method how to improve auditors' performance in dealing with fraud case assessment can also be proposed.

The rest of the paper is organized as follows. Section two presents theory development and hypotheses formulation. Section three discusses the research method; followed by section four, hypotheses testing. Section five is conclusion, discussions and limitations.

THEORY DEVELOPMENT AND HYPOTHESES FORMULATION

The Concept of Fraud

Fraud is defined as “embracing all multifarious means which human ingenuity can devise and which are resorted to by one individual to get an advantage over another by false suggestions or suppression of truth, and includes all surprise, trick, cunning or dissembling and any unfair way by which another is cheated” (Black’s Law Dictionary, quoted in Wells, 1992, p.247).

One of guidance for auditors in dealing with fraud matters is the U.S. Statement of Auditing Standard (SAS) No.82. This standard requires auditors to assess the overall risk of material financial misstatement due to fraudulent financial reporting (management fraud). In addition, the International Standard on Auditing 240 also requires auditors “...to provide reasonable assurance that the Financial Statements taken as a whole are free from material misstatement, whether caused by fraud or error.” According to the Eining et al (1997), auditor should respond to fraud risks that might occur in accounting transactions by designing a proper audit plan to provide reasonable assurance for fraud risks detection. As a note, due to the fact that Indonesian auditing standards are adopted from the US standards, hence SAS No. 82 can also be applied in Indonesia.

According to SAS No.82, two factors that stimulate fraud are motivation and perceived opportunities. Motivation consists of pressure or incentives to commit fraud while perceived opportunities consist of trust violation. Robertson and Louwers, as quoted in Reinstein and Bayou (1999, p. 6) define perceived opportunities as “an open door for solving the unsharedable problem in secret by violating trust. The violation may be simply be taking advantage of an absence or lapse of control in an organization.” The fraudster must perceive both opportunities and motivation to commit fraud.

Bologna et al. (1993) distinguish fraud risk factors into generic risk factors and individual risk factors. Generic risk factors consist of opportunity and exposure factors that are related to the organization. Meanwhile, individual risk factors consist of greed and need factors that are related to the individual. These entire factors (sometimes called GONE; Greed-Opportunities-Needs-Exposure) interact together to determine the level of fraud risk.

In conducting audits, auditors must be concerned with motivation and perceived opportunities, the stimulus factors of fraud, especially when they design audit procedures for material misstatement of the financial statements. SAS No.82 (as quoted in Guy and Carmichael,

2002) requires auditor to design appropriate audit procedures in assessing the risk of material misstatement of the financial statements due to fraud. These procedures must concern with fraud risk factors that relate to fraudulent financial reporting and misappropriation of assets.

Experience Effects in Audit Judgments

Most studies with expertise topic have divided subjects into groups of experts and novices on the basis of years of experience or tenure-based titles (eg. Bonner and Lewis, 1990; Ashton and Brown, 1980; Butt, 1988; and Bonner, 1990). The results of these studies showed that evidence regarding the effects of experience on audit judgments is somewhat mixed. Some results suggested that experience should be regarded as an important factor on auditors' performance prediction (Butt, 1988; Bonner, 1990; Choo and Trotman, 1991; Libby and Frederick, 1990; Tubbs, 1992; Davis, 1996; Shelton, 1999). Others indicated that there are no differences between experienced auditors and inexperienced auditors on auditors' performance (Ashton, 1974; Ashton and Brown, 1980; Ashton 1991).

Most of the research findings which support that experience should be regarded as an important factor on auditors' performance prediction used knowledge as moderating variable in their research (Butt, 1988; Libby & Frederick, 1990; Choo and Trotman, 1991). Others focused on memory in developing professional judgment in auditing (Tubbs, 1992) or on the using of relevant information in their research (Davis, 1996; and Shelton, 1999).

The advantage of knowledge that belongs to experienced auditors is explained by Butt (1988). He argued that experienced auditors can make better judgments in professional tasks than inexperienced auditors do. Libby and Frederick (1990) found that experienced auditors show more complete financial statements errors knowledge and produce more accurate explanation hypotheses. In other words, audit experience can improve auditor knowledge in regard to causes and consequences of errors in a certain transaction cycle. Furthermore, in regard to knowledge structure and predictive judgments in their research, Choo and Trotman (1991) examined the differences in knowledge structure and judgments between experienced auditors and inexperienced auditors. Their results showed that experienced auditors can recall more atypical items than inexperienced auditors.

In the use of memory in developing professional judgment, Tubbs (1992) found that experienced auditors have ability to remember more errors in financial statements and conduct fewer errors in their tasks. Experienced auditors also have ability to remember more irregu-

larities errors. In detail, Tubbs (1992) showed that as auditors gain experience: (1) they know more errors, (2) they have more accurate error knowledge, (3) they know more atypical errors, and (4) the causally-related features of errors (where the errors occurred and the internal control objectives violated) become relatively more salient.

Related to relevant information selection, Davis (1996) found that experienced auditors can show the higher selectivity rate in selecting relevant information compared to inexperienced auditors. This result is harmonious with Shelton's (1999) result that indicated experienced auditors can reduce the influence of irrelevant information on audit judgments. In her research, she found that more experienced auditors are not influenced by the presence of irrelevant information in making a going-concern judgment.

In contrast, Ashton and Brown (1980) found that there are no differences between experienced and inexperienced auditors in consensus on internal control evaluation. Their result is further strengthened by Ashton's (1991) result that showed months of general audit experience are not correlated with how accurately auditors judge the frequency of specific financial statement errors.

The results of Ashton and Brown (1980) and Ashton (1991) may have been different from those who argued that experience affects performance because these studies did not consider the knowledge required to perform the experimental tasks, when that knowledge would be acquired, and how this knowledge would be brought to bear upon the task (Frederick and Libby, 1986). Bonner (1990) argued that the results of Ashton and Brown (1980) and Ashton (1991) may be due in part to the nature of the task and whether the knowledge required to perform this task is gained early in auditors' careers and decays over time. Bonner (1990) also argued that the failure of considering task-specific knowledge may lead to certain problems in generalizing the results of these studies to other auditing tasks. Her arguments are based on some of the following reasons: *First*, some studies found no experience effects used experimental tasks for which the designated experienced and inexperienced auditors both possessed the requisite knowledge. *Second*, some studies may not have obtained experience effects because the experimental tasks did not contain the components in which knowledge acquired through experience would most aid performance, e.g., cue selection. *Third*, studies finding a main effect for experience in one task may have demonstrated something other than task-specific knowledge differences, such as superior ability of experienced auditors at all tasks. *Fourth*, other studies with main effects for experience in multiple tasks may have confounded knowledge differ-

ences and task differences. Furthermore, Bonner and Lewis (1990) observed that results from accounting literature imply that general experience is an incomplete measure of task-specific expertise. They argued different audit tasks require varying types of knowledge. Thus, researchers should specify the knowledge needed to complete tasks and not assume that all persons at a given level of experience equally possess task-specific knowledge.

Task Specific Knowledge

In a discussion paper of expertise in auditing, Bedard and Chi (1993) argued that expertise could be characterized by knowledge, problem solving, and decision quality. They proposed that in the knowledge issue, there are two main considerations that affect expert performance in doing their tasks. These considerations are amount of knowledge and knowledge structure. The expert-level performance not only depends on amount of knowledge but also depend on the organization of this knowledge or knowledge structure. Moreover, according to Bedard and Chi (1993), research in several domains suggests that experts establish categories based on deep structure (such as principles or procedures) whereas novices rely on surface structure (common factor), and that experts have more and stronger links between concepts and more procedural knowledge associated with those concepts. Further, they gave an example of deep or surface structure in the knowledge structure as follows: “errors in the financial statements may be organized based on the transaction cycle or assertion affected (deep structure) or on the error cause (surface feature).”

In their review, Bedard and Chi (1993) found that expert auditors have multiple links among auditing concepts and procedures that novices do not. One example they provide in their paper is Frederick and Libby’s (1986) results. Frederick and Libby’s (1986) found that the expert auditors form their judgment based on the relations between accounts and on the perceived causal correlation between weaknesses and accounting errors when asked for the consequences of control weaknesses, while novice students form their judgment based only the relations between accounts.

Further, the study on the expertise-related knowledge should be viewed as related to specific tasks and knowledge rather than singular tasks (Ashton, 1991; Bonner and Lewis, 1990; Bonner, 1990). Ashton (1991) found that: (i) even the most experienced auditors have limited direct experience with financial statement errors; (ii) auditors seem to know only the most frequently occurring error effects and causes; and (iii) the differences in auditors’ knowledge on error effects

across experience levels are not explained by the differences in the length of either audit experience or industry-specific audit experience. These results suggest that audit experience should be viewed as related to specific tasks rather than singular tasks. Thus, particular experience must be understood as it relates to a particular type of knowledge.

According to Ashton (1991), the definition of specific tasks comes from an analogy to medicine. The expertise of a radiologist who frequently and repetitively performs one particular task requires a different characterization than that of an internist or general practitioner who applies a variety of diagnostic techniques and provides treatment for many illnesses. The internist may possess expertise that should be characterized different from that of a cardiac specialist who uses many diagnostic techniques but focuses on one particular system. To the extent that the auditor is a general practitioner, it should not be assumed extends to all auditing tasks performed in all industries, in companies of varying sizes, operating in various environments, and so on. In other word, an auditor who usually conducts financial audit cannot be expected to perform as well as when he conducts investigative audit (fraud audit).

Bonner and Lewis (1990) identified key determinants of performance as problem-solving ability and three forms of technical knowledge: general accounting and auditing knowledge, subspecialty knowledge, and general business knowledge. Problem-solving ability is likely to be partially innate and partially refined through experience in problem solving. According to Bonner and Lewis (1990), not all persons with similar experience in a domain are likely to have similar problem-solving abilities. Specific experiences combined by training could create knowledge. This kind of knowledge could be combined with innate ability in order to perform specific audit tasks. They found that task-specific training and innate ability could improve the expert performance in doing their specific tasks.

Bonner (1990) investigated the role of task-specific knowledge in audit judgments and how that task-specific knowledge affected the performance of experienced auditors in certain components of those judgments. She used two experience levels in order to determine the performance effects of experience-related knowledge differences. In her study, Bonner (1990) used two tasks with similar characteristics but differing knowledge requirements (analytical procedure risk assessment and control risk assessment) to provide added controls for the effects of subjects' differences. There should be large experience-related knowledge differences about analytical risk assessment, but small knowledge

differences about control risk assessment. For the analytical risk assessment, experienced auditors are expected to have more firms training than inexperienced auditors so that they have more complete knowledge to perform this task. For the control risk task, both experienced and inexperienced auditors are expected to have had college and audit firm training and also have had experience evaluating controls. The components of the control risk and analytical procedure studied in her study are cue selection and cue weighting. In both of these components, knowledge is expected to aid subjects' performance. The result of this study showed that the task-specific knowledge aided the performance of experienced auditors in both the cue selection and cue weighting components only in analytical risk assessment. Bonner (1990) used the social judgment theory version of the lens model in order to assess the effect of experience on cue weighting and the effect of cue weighting on judgment agreement.

The Effect of Task Specific Knowledge on Auditors' Performance

As previously discussed, many aspects of an auditor's knowledge about fraud are likely to develop with specific knowledge. The knowledge of an auditing student or a novice auditor is necessarily confined to information gained from auditing textbooks. Most of the auditing textbooks only contain the introduction of fraud, how to prevent it through control and some example of fraud cases and not necessarily, for example, to discuss about opportunity and motive of fraud perpetrator to commit fraud. However, the development of knowledge of fraud is likely to be function of specific audit knowledge, discussion audit with colleagues, supervision and review work by supervisor, and case material used in training programs. In order to improve auditors' ability to assess fraud, some training in fraud could be useful (Jacobson, 1990, p.15). This training should be conducted at least once a year. A trained expert can present a fraud prevention session in-house at minimal cost to the organization.

In this study, task-specific knowledge is defined as knowledge that is required by auditors to assess fraud cases. According to fraud audit training manual, issued by the education and training center of Badan Pemeriksa Keuangan Republik Indonesia (The Indonesian's Supreme Audit Board; hereafter BPK-RI), the fraud audit training material contained discussion in fraud, law enforcement, advanced accounting and auditing, psychology and computer technology. These materials are similar with Bologna et al.'s (1993, p.234) argument that fraud knowledge consists of accounting and auditing knowledge; fraud knowledge; law and rules of evidence; investigative mentality; psychology;

communication skill; computers and information technology. Auditors through training session can obtain this knowledge. Therefore, this study predicts that as specific knowledge is gained, the numbers of fraud matters known by auditor is expected to increase because the auditors have more items (task-specific knowledge) stored in their memory. Moreover, the using of task-specific knowledge can improve auditor's performance to assess fraud case.

In addition, Mervis and Pani (1980) argued that the most typical members of a category are learned first and are more frequently recalled later. The definition of typicality is defined as the degree to which an object is representative of a category. The typicality of category member is considered to be a function of how frequently the item is "seen, talked about, or interacted with..." (Malth and Smith, 1982). As auditing experience increases, more task-specific knowledge are expected to be learned. Since task-specific knowledge that gained through training session in this study is important to improve auditors' performance, therefore the following hypothesis is proposed:

H1: *Task specific knowledge will improve auditors' performance in the fraud risk task.*

This study also tried to explore the effects of experience and fraud training on auditors' performance. Since both tasks, which used cue selection component, require different knowledge (large experience-related knowledge differences about fraud risk, but small knowledge differences about control risk) and experience factor, which is important for superior performance in cue selection, were considered in this study so that experience and task-specific knowledge are expected to aid the auditors in performing tasks, particularly in fraud risk task. This is harmonious with the idea that training and experience creates task-specific knowledge which can aid auditors' performance in cue selection task (Bonner 1990). Therefore, the following hypothesis is proposed:

H2: *The combination of experience and fraud training would improve auditor's performance in assessing the tasks.*

METHOD

Approach for Studying Experience Effects

As mentioned earlier, previous research on the experience effect did not consider the role of task specific knowledge. As consequences, the result of the experience effect is difficult to be generalized (Bonner, 1990). To reduce the problems of generalizing the results of

previous studies on the experience effect, this study investigates the experience effect on the auditors' performance by varying experience levels and audit tasks. Following Bonner (1990), this study uses cue selection as component in which knowledge acquired through experience is expected to aid performance.

Three experience levels in this study are used to determine the performance effects of experience-related knowledge differences (experienced auditor, inexperienced auditor, and student). Based on Bonner's (1990) arguments, two tasks (fraud risk assessment and control risk assessment) with similar characteristics, but differing knowledge requirements are used in this study to provide added controls for the effect of subject differences other than knowledge that might be related to experience. The differing knowledge requirements described as there should be large experience-related knowledge differences about fraud risk, but small knowledge differences about control risk. These knowledge differences exist because in this study both experienced and inexperienced subjects will have had college about the control risks when they perform control risk task while in fraud risk task, experienced auditors are expected to have more training in fraud audit than the inexperienced auditors.

Both assessments were chosen because they can reduce the effect of factors other than knowledge which can affect subject performance. The use of only one task may either produce main effect for experience, or disguise the lack of knowledge differences. On the other hand, the use of both tasks in this study, which have knowledge differences between tasks, may produce an experience-task interaction (Bonner 1990). Therefore, the comparison of performance between experienced and inexperienced auditors in both tasks that differ only on experience-related knowledge differences would rule out other explanations for experience effects.

The similar characteristics of the tasks include structure and components. According to Bonner (1990), these kinds of tasks can be categorized as "semi-structured" task because they have reasonably well-defined cues, a limited number of alternatives for output (yes or no), and some judgment is needed. Further, the tasks have similar component, which is cue selection. In the fraud risk task, subjects select the appropriate cues of specific factors for purchases and acquisitions cycle. In the control risk task, subjects select the appropriate cues of specific controls for purchases and acquisitions cycle.

Data Sample and Survey Administration

Data for this study were collected using surveys that were conducted in Jakarta and Yogyakarta. These study involved 64 auditors and 42 students. Some of the auditors had received fraud training. All of the auditors in each group are government employees and employed by BPK-RI. These auditors work in BPK-RI main office which is located in Jakarta.

The government auditors were selected for the study because the government of Republic of Indonesia has investigated fraud cases intensively since 1998. The purpose of these investigations is to uncover fraud practices in government institutions and in state-owned companies. As a consequence, BPK-RI, as the authorized audit board in Indonesia, took responsibility to investigate fraud cases. In addition, training and education programs related to fraud were introduced to BPK-RI's auditors in 1999.

The students who participated in this study were from the University of Gadjah Mada, Yogyakarta. The University of Gadjah Mada was selected because it is recognized as one of the best universities in Indonesia, specifically majoring in accounting. The involvement of students and auditors as subjects of this study is to determine whether experience and task-specific knowledge factors affect subjects' performance. If the responses of the two groups differ substantially, one or more of these factors may be important and vice versa (Ashton and Kramer 1980). The students were selected for the study because they have no experience in conducting an audit as well as in attending fraud training. Therefore, they predicted to perform differently than the group of auditors. Moreover, according to Tan (2001) the participation of student in the study, which is the subject matter of interest is auditor performance, does not necessarily mean inappropriate.

In order to provide experience levels, auditors who have working experience for more than three years are classified as experienced auditors (first level) and those who have working experience less than three years are classified as inexperienced auditors (second level). As a result, the auditor subjects consist of 40 experienced and 24 inexperienced auditors. The number of inexperienced auditors is less than experienced auditors because BPK-RI has employed few auditors since 2000. This was in accordance with the BPK-RI zero growth policy in its human resources. In addition, the majority of those accepted as new employees (auditors) in BPK-RI have been placed in branch offices throughout Indonesia.

The participants are to make assessments on the fraud risk task. The assessments require participants to circle 'yes' or 'no' for each

cue to indicate whether or not they would consider that cue as a relevant factor to the risk assessment in question. The instruments used to measure variables in this study were developed in English. Since English is not widely used in Indonesia therefore it was necessary to translate the instruments into Indonesian to perform the study.

The instrument contained background information for the state-owned company, including a brief description of the company's business, history, financial affairs, and the operation of its purchases and acquisition cycle. Following this were instructions describing and defining the risk assessments that were to be made during audit planning.

Participants then received a list of 16 cues for fraud risk task. The list contains relevant and irrelevant cues to the risk assessment task. They were asked to circle either "yes" or "no" for each cue to indicate whether they would or would not consider that factor to be relevant to the risk assessment in question. At the end of the booklet, participants were instructed to answer biographical information relating to collegiate education, specific training, and experience in fraud assessment. To complete this questionnaire, 20 (twenty) minutes of time was allocated to the subjects.

These studies were conducted in several phases. For auditors, the study were conducted on December 12th (phase 1) and 19th (phase 2) 2002 in the BPK-RI main office, Jakarta, Indonesia. In Phase 1, 38 auditors participated in the study and in phase 2, 26 auditors participated. According to Trotman (1996), if the researcher can provide the participants with realistic tasks in a study, this kind of study will lead to the seriousness of participants. Moreover, Solomon et al. (1984) argued that realistic task will encourage participants to "work diligently and exhibit genuine interest in the study". This study provided the participants with the realistic tasks which require them to make judgment in the fraud risk task. Additionally, to create the situation that makes the participants can do their 'best' judgments, authors provided an incentive.

In phase 3, an experiment was conducted on December 24th 2002 in The University of Gadjah Mada, Yogyakarta, Indonesia. The participants were students enrolled in auditing class. The experiment was conducted in auditing classroom and started after they finish their morning session class. Similar to the treatment to auditors, the participants in this experiment were provided with an incentive.

RESULTS

Test of Hypothesis H1

Hypothesis H1 states, “*Task specific knowledge will improve auditors’ performance in the fraud risk task.*” The results of the analysis showed the significant course-by-tasks interaction effect ($p = .007$). This result means that course variable significantly affect auditors’ performance in undertaking the task.

Table 1. The interaction effect of fraud risk task and fraud training

Effect	Wilks’ Lambda	F	Sig.
Tasks	.489	36.000	.000
Tasks × fraud training	.813	36.000	.007

In order to test the simple effects, a t-test was used. The results from simple effects test showed that coursed auditors’ accuracy score performance was significantly different from non-coursed auditors’ accuracy score performance in fraud risk task ($p = .000$). The mean differences were found is 2.77. It means that the course variable has effect in auditors’ performance when performing fraud risk task.

Table 2. The effect of task-specific knowledge on fraud risk task

Source of Variation	Level	Mean	Mean Difference	F	Sig.
TASK × TRAINING					
Fraud Risk Task	Fraud training	4.67			
	No fraud training	1.90	2.77	0.174	.000

In this study, course referred to fraud audit training. The results of analysis indicated that coursed auditors perform better than non-coursed auditors in assess the fraud risk task. As discussed earlier, the fraud risk task required more specific knowledge which gained through fraud audit training. Therefore, these results revealed that this knowledge will improve auditor’ performance in the fraud risk task. The results also support Bonner’s (1990) study which found that task-specific knowledge can aid the auditors’ performance in the cue selection component in specific task.

Test of Hypothesis H2

Hypothesis H2 states “*the combination of experience and fraud training would improve auditor’s performance in assessing the tasks.*” The analyses showed that the interaction between task and combined

variable (experience and training) was found to be statistically significant ($p = .009$). It means that both experience and fraud training factor affect auditor's performance in undertaking the tasks.

Table 3
The interaction effect of experience, task-specific knowledge and fraud risk task

Effect	Level	Mean	Mean Difference	Wilks' Lambda	F	Sig.
Tasks				.455	40.654	.000
Tasks × exp × train				.717	4.467	.009
Fraud Risk Task	1. Experience & training = yes	5.2				
	2. Experience = yes; but training = no.	3.5	1.7		.102	.002
	3. Experience = no; but training = yes	4				
	4. Experience & training = no	0.3	3.7		14.341	.000

However, in order to test simple effects, t-tests were used and the results showed that:

- (1) The experienced auditors', who have fraud course experience, accuracy score performance was significantly different from experienced auditors', who have no fraud course experience, accuracy score performance in fraud risk task ($p = 0.002$);
- (2) The inexperienced auditors', who have fraud course experience, accuracy score performance was significantly different from inexperienced auditors', who have no fraud course experience, accuracy score performance in fraud risk task ($p = .000$);
- (3) The experienced auditors', who have fraud course experience, accuracy score performance was found not to be significantly different from experienced auditors' who have no fraud course experience, accuracy score performance in control risk task ($p = .071$); and
- (4) The inexperienced auditors', who have fraud course experience, accuracy score performance was found to be significantly different from inexperienced auditors', who have no fraud course experience, accuracy score performance in control risk task ($p = .004$).

These simple effects revealed that fraud-training variable is more dominant than experience variable in influencing in auditors' performance. But the presence of experience and fraud training variable would lead to auditors' better performance in the tasks. This combination of variables improved auditors' performance in assessing the tasks,

particularly in the fraud audit task. The absence of one or both of these variables will reduce auditor’s performance in the tasks. Thus H3 is supported.

In summary, the interaction effects of task and combined variable between experience and training was found to be statistically significant ($p = .009$). It means that both experience and fraud training factor affect auditor’s performance in undertaking the tasks. The simple effects results also suggested that fraud training variable is more dominant than experience variable in influencing auditors’ performance, particularly in the fraud risk task. However, the presence of experience and fraud training variable would lead to auditors’ better performance in the tasks. As described earlier, in order to assess specific task (fraud risk task), auditors require task-specific knowledge. This knowledge can be obtained from fraud audit training. Along with experience, task-specific knowledge can influence subjects’ performance in specific task (fraud risk assessment). These results were consistent with the idea that “training and experience in a task creates task-specific knowledge of relevant cues which can aid in cue selection.” (Bonner, 1990, p.84).

CONCLUSIONS, DISCUSSIONS AND LIMITATIONS

The summary of the results of hypotheses testing can be seen in table 4.

Table 4. Summary of the findings

Hypotheses	Findings
<i>H1: Task specific knowledge will improve auditors’ performance in fraud risk task.</i>	Hypothesis is supported
<i>H2: There is a relationship between experience level and task-specific knowledge toward the auditors’ performance.</i>	Hypothesis is supported

The support of *H1* indicated that auditors who have fraud audit training experience, regardless their year-based experience, will be associated with a higher fraud risk task score. Auditors required more specific knowledge to assess specific task (fraud risk task) than to assess control risk task. Since this knowledge is gained from fraud audit training, it can be concluded that fraud audit training is associated with task-specific knowledge. This finding is consistent with Bonner’s (1990) study which found that task-specific knowledge aided the auditors’ performance in the cue selection component in specific task (e.g., fraud risk task).

Since task-specific knowledge is achieved from fraud audit training, this study also support previous study which found that training and decision aids may be useful for cue selection performance (Bonner, 1990). Further, Libby and Frederick (1990) also found that when the gap between experts' and novices' knowledge and performances are the greatest, training and decision aids can provide the greatest potential gain in order to reduce this gap. Hence, the support of *H1* also suggested that training is an important tool to increase auditors' ability in performing specific task (e.g., fraud risk assessment).

The support of *H2* indicated that experience that comes along with task-specific knowledge can influence auditors' performance. However, the further analysis in testing simple effects revealed that task-specific knowledge is more dominant than experience variable in influencing auditors' performance. The influence of experience level on the auditors' performance depends upon task-specific knowledge variable. This result also showed that task-specific knowledge intervene the relationship between experience and performance. Finally, this finding strengthened the results of *H1* analysis which suggest that training may be useful in improving auditors' performance, especially when they performed specific tasks.

Additional analyses has also been undertaken to ascertain if (1) the subjects' performance, auditor and student, are different and (2) the relationships between experience and performance can be affected by the other factors such as fraud audit engagement. The first additional analysis is important in order to determine whether experience and task-specific knowledge factors can affect subjects' performance (auditors and students). When the responses of the two groups differ substantially, one or more of these factors may be important. On the other hand, when the responses of the two groups differ only slightly, it might be concluded that such factors are relatively unimportant (Ashton and Kramer, 1980). The second additional analysis is also important in order to determine other factors that may affect performance. The results from prior study indicated that the other factors such as specific-task experience and training can create knowledge which can improve subjects' performance in their tasks (Bonner, 1990).

The results of additional analyses indicated that auditors performed better than students in the fraud risk task. This finding provides an explanation that experience and task-specific knowledge are important factors in order to explain performance. The difference performance between auditors and students in the task can be explained by the experience and knowledge that belong to the subjects. That is, experienced auditors have more firm training in fraud audit than the students

have. In fact, none of the students in this study has any experience in fraud audit training.

Further, the results of additional analyses also indicated that auditors who have fraud audit engagement experience will be associated with a higher fraud risk task score. This finding is consistent with Tubbs' (1992) result which shown that the development of knowledge of fraud is also likely to be a function of specific audit experiences. These additional analyses also employed task-specific experience and task-specific knowledge factors in their relation with performance. The analyses also found that both factors affect the auditors' performance in performing their fraud risk task. This finding is consistent with Bonner and Lewis' (1990) result which demonstrated that specific audit experiences combined with training could create knowledge. This kind of knowledge could improve auditors' performance in performing their specific task (e.g., fraud risk assessment).

Overall, these results may have important theoretical and practical implications. From the theoretical perspective, they are consistent with the findings of prior results which concluded that the performance of experienced and inexperienced auditors is different (Butt 1988; Bonner 1990, Libby and Frederick 1990; Choo and Trotman 1991; Tubbs 1992; Davis 1996; Shelton 1999; Knapp and Knapp 2001). The differences can be explained by the advantageous of task-specific knowledge that belongs to experienced auditors when they performing a specific task (Bonner, 1990). Besides that factor, the auditors' performance can be also affected by fraud audit engagement factor. This is consistent with Tubbs' (1992) result which found that the development of knowledge of fraud is to be a function of specific audit experiences.

From the practical perspective, these results suggested that fraud audit training can lead to the improvement of auditors' performance in undertaking their tasks. Hence, these results provided a support for the requirement of training that may be useful for cue selection performance (Bonner, 1990) and an argument regarding the importance of a training program as an important tool to improve auditors' ability in performing specific task (Libby and Frederick, 1990). Since fraud audit training material also include control risk issues, the use task-specific knowledge that is gained from fraud audit training may also lead to better performance of auditors in performing control risk task.

Like other studies, there are limitations associated with this study. The auditors that involved in the experiment only come from one auditing organization (only from BPK-RI). The results of this study may lead to difficulties of generalization because this study is not examining the performance of other auditing organization. There is some compen-

sation for this potential weakness by the fact that this study gained access to BPK-RI's auditors. This means that the case study involve competent auditors who are selected through tight screening test by BPK-RI to be its employees.

Finally, there is also the possibility that the subjects in this study might react to the case study differently from how they react in a real case. This possibility is always inherent with this type of research and is very difficult to control.

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