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Contemporary Management Research  
Pages 55-74, Vol. 11, No. 1, March 2015  
doi:10.7903/cmr.12239

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## **The Role of "Tone at The Top" and Knowledge of Fraud on Auditors' Professional Skeptical Behavior**

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### **ABSTRACT**

Auditors need to be professionally skeptical when they are conducting an audit. Skeptical behavior is especially needed when there are indications of fraud in the audited entity. Without skepticism, fraud is likely to be overlooked, because fraud is usually concealed by the perpetrators. This experimental study aimed to investigate the influence of skeptical attitude, tone at the top, and knowledge of fraud on auditors' professional skeptical behavior. The study participants were junior auditors, senior auditors, and auditor supervisors. The analysis led to three key findings in this study. First, skeptical attitude, tone at the top, and the auditor's knowledge of fraud influenced the skeptical behavior of professional auditors. Second, a high tone at the top of the partner's style played an important role in maintaining and improving auditors' professional skeptical behavior, particularly for auditors who had a weak skeptical attitude. This result supported the theory of the attitudes-behavior relationship described by Fazio (1990) in the MODE model. Third, auditors' knowledge about fraud improved their professional skeptical behavior. However, knowledge of fraud did not influence auditors' professional behavior if those auditors had weak skeptical attitudes and were supervised by a supervisor with a low tone at the top style.

Keywords: Tone at The Top, The MODE Model, Professional Skepticism, Knowledge of Fraud

## INTRODUCTION

Auditors need to adopt skeptical behavior when conducting an audit procedure. They should not be easily satisfied with audit evidence or base their examination solely on trust that management and related parties are honest and operate with absolute integrity (IFAC, 2007, ISA 240.23-25). Skeptical behavior is especially needed when there are indications of fraud in the audited entity. Without behavioral skepticism, fraud is often difficult to detect because fraud is usually concealed by the perpetrators (Knapp & Knapp, 2001).

The importance of auditors' professional skeptical behavior in detecting fraud is highlighted in the Statement on Auditing Standards (SAS) No. 99, which provides guidance for auditors on how to maintain professional skepticism during the audit engagement (AICPA, 2002). However, in fact, auditors do not always use professional skepticism during the audit engagement. Research by Beasley, Carcello, and Hermanson (2001)—based on the SEC's Accounting and Auditing Releases (AAERs) over an 11-year period (January 1987 to December 1997)—indicates that one of the causes of auditors' failures in detecting fraud is the low level of their professional skepticism.

The Association of Certified Fraud Examiners explained that "tone at the top" refers to the ethical atmosphere or organizational culture created by the head of the organization in the workplace, which ultimately affects subordinates' task performance. Lately, public attention has focused on the role of tone at the top in the occurrence of fraud in a certified public accountant firm. An example of the role of tone at the top is the fraudulent behavior of David Duncan, the chief partner of Arthur Andersen, one of the world's big four accounting firms. Duncan ordered his staff to destroy hundreds of audit working papers and e-mails related to Enron, his client. The destruction of these documents by Duncan confirmed, for the public and Congress, that Andersen knew of Enron's bad business practices, but Duncan did not want to disclose this in the audit report as he feared losing Enron as a client.

Contrary examples show that the tone at the top can also play a positive role by creating an ethical behavior in an organization (AICPA, 2002). Carpenter and Reimers (2007, 2009 a, 2009 b) reported that auditors who work under high "tone at the top" environment behaved more skeptically by recognizing a higher risk of fraud than auditors who work under low tone style superiors. Thus partners in charge of supervising an audit engagement need to emphasize the importance of maintaining a professional skeptical attitude to their staff generally, and to auditors in particular. However, their study did not examine the interaction effect of tone at the top supervision style and skeptical attitude on professional skeptical behavior. This study

aims to fill the gap by investigating the influence of skeptical attitude, tone at the top, and knowledge of fraud on the auditors' professional skeptical behavior.

The model for this study is based on the theory of attitude–behavior relations described by Fazio (1990), who introduced the MODE model, which states that “attitudes can be activated in one of two ways: in a controlled or deliberative fashion or in an automatic or spontaneous fashion.” This model explains that sufficient motivation and cognition are determinant attitudinal factors that guide behaviors. However, human behavior is not necessarily determined by this attitude. When people are sufficiently motivated and have the cognitive capacity to do something, their attitude will be activated in a controlled or deliberate fashion. In this case, their attitude toward a task or object would be consistent with their behavior toward the task or object. However, if their motivation is low, their attitude will be activated spontaneously. In this case, only a strong attitude will determine their behavior.

Under the MODE model, this study made three predictions: (1) auditors would have a highly professional skeptical behavior when they have the motivation and cognitive capacity to activate their skeptical attitude and when such motivation arises from a supervisor with a high-tone style; (2) only auditors who had a strong skeptical attitude would behave in a skeptical manner when supervised by a low-tone supervisor; and (3) knowledge of fraud might improve auditors' professional skeptical behavior, even if they have a weak skeptical attitude.

This study addresses auditors' professional skeptical behavior based on to the classifications of four specific auditor behaviors detailed by Hurtt (1999): (1) increased information search, (2) increased contradiction detection, (3) increased alternative generation, and (4) expanded scrutiny of source reliability. The term *tone at the top* refers to the supervision style of the partner in charge of the audit team or the audit team leader (Carpenter & Reimers, 2007, 2009a, 2009b). A partner in charge who has a high-tone style concentrates on the audit's effectiveness by placing more emphasis on the auditors' professional skeptical behavior rather on cost efficiency. On the other hand, the partner in charge who has a low-tone style concentrates more on cost efficiency and time effectiveness than on audit effectiveness. Several previous studies have shown that the tone at the top of the audit assignment affects the behavior of the auditors' professional skepticism (Carpenter & Reimers, 2007, 2009a, 2009b). Hurtt (2008) also concluded that the auditors' skeptical attitude affects their professional skeptical behavior in evaluating audit evidence.

Carpenter, Durtschi, and Gaynor (2002) argued that auditors who have high levels of knowledge of fraud will have high levels of professional skeptical behavior. Herawaty and Susanto (2008) concluded that, when conducting an audit of financial

statements, auditors' professionalism, knowledge of errors, and professional ethics have a positive significant effect on their consideration in determining the level of substantial misstatement in financial reporting. Thus, it is presumed that an auditor's knowledge of fraud affects their professional skeptical behavior. The variable knowledge of fraud refers to the auditor's knowledge of fraud in the financial statements and the techniques employed in detecting fraud, as listed in SAS No. 99. Auditors' knowledge of fraud is expected to improve their professional skeptical attitude, which ultimately leads to their appropriate professional skeptical behavior.

This study is different from the studies by Carpenter and Reimers (2007, 2009 a, 2009 b) as it investigates the influence of three variables—auditors' skeptical attitude, tone at the top, and knowledge of fraud—on the auditors' professional skeptical behavior, based on Fazio's MODE model. Carpenter and Reimers (2007) used Nelson's (2009) model to investigate the influence of tone at the top and auditor's skeptical attitude toward fraud risk assessment and the selection of adequate audit procedures. Furthermore, Carpenter and Reimers (2009a) examined the effect of a partner's attention to the professional skeptical attitude and the existence of fraud against the two auditor fraud risk factors: fraud risk assessment and the selection of adequate audit procedures. This study extended Carpenter and Reimers' (2009a, 2009b) study by investigating the effect of the interaction between an auditor's skeptical attitude and tone at the top partners on professional skeptical behavior. This study finds that an auditor's skeptical attitude can be improved if the auditor is motivated by a high tone at the top partner style. In addition, this study also contributes to previous studies' findings that knowledge of fraud plays a role in improving an auditor's skeptical attitude. Furthermore, this study provides a better understanding for standard setters, auditors, and academicians on how the role of tone at the top and knowledge of fraud maintain and improve the skeptical behavior of auditors.

## **THEORY AND HYPOTHESIS DEVELOPMENT**

### **The MODE Model**

This study aimed to investigate the influence of skeptical attitude, tone at the top, and knowledge of fraud on auditors' professional skeptical behavior. The framework is based on the attitudes–behavior relationship described by Fazio (1990) in the MODE model (motivation and opportunity as determinants of the attitude–behavior relationship), which defines two basic classes of the attitude-to-behavior processes:

(1) in a controlled or deliberative fashion and (2) in an automatic or spontaneous fashion.

Based on Fazio's MODE model (Ajzen, 2005), when people are sufficiently motivated and have the cognitive capacity to do so, they can retrieve or construct their attitude toward a task or object in a purposeful manner so that their attitude influences their behavior. When motivation or cognitive capacity is low, attitudes can become available only if they are automatically activated. According to the MODE model, only strong attitudes will usually be activated automatically. In this case, an attitude can guide behavior in a spontaneous manner, without the individual actively thinking about it and without the individual's necessary awareness of its influence.

### **Skeptical Attitude, Tone at the Top, and Professional Skeptical Behavior**

The term *attitude* is defined by Ajzen (2005) as "a summary evaluation of a psychological object captured in the dimension attribute such as good–bad, harmful–beneficial, pleasant–unpleasant, and likable–dislikable." Attitudes are not behaviors; rather, they represent a readiness for action or behavior. Attitude is a tendency to respond, not the response itself (Siegel & Marconi, 1989).

The term *skeptical* refers to the auditors' attitudes while conducting an audit assignment. A skeptical attitude implies that the auditor always critically questions and evaluates the evidence presented for audit. In addition, the gathering of audit evidence should be considered as part of the audit process—that is, a professional skeptical attitude should be applied throughout the entire audit procedure (IAPI, 2011, the SA section 230; AICPA, 2002, AU 230). Auditors who are skeptical have a tendency not to accept their clients' statements without adequate supporting evidence. Therefore, these auditors will always require their clients to prove their financial statements.

Skepticism does not mean that the auditor can be cynical, too critical, or insulting. Auditors' skeptical attitude will lead them to always ask questions about any clue that might indicate the existence of fraud (Louwers, Ramsay, Sinason, & Strawser, 2005). Hurtt, Eining, and Plumlee (2003) reported that an auditor's skeptical attitude leads to his or her professional skeptical behavior. They argued that auditors who have a highly skeptical attitude will be more competent in collecting audit evidence. Nelson's (2009) model of professional skepticism shows that characteristics of the skeptic can affect the skeptical judgment or action. According to Quadackers' (2009) empirical study, skeptical characteristics are positively associated with the auditors' skeptical judgments and decisions.

The phrase *tone at the top* in this study refers to the style of the partner in charge of supervising an audit assignment (Carpenter & Reimers, 2007, 2009a, 2009b). Results from their experiment suggest that auditors' fraud risk assessments are more stringent with a partner who emphasizes an attitude of professional skepticism than with a partner who places less emphasis on professional skepticism. In this study, the tone at the top is viewed from two perspectives: (1) high tone, which describes the managerial tone of the partner in charge who concentrates on audit effectiveness by focusing on professional skeptical attitude rather than cost and time efficiency, and (2) low tone, where the managerial tone of the partner in charge concentrates on cost and time efficiency rather than audit effectiveness.

SAS No. 99 explains the importance of the partner in charge emphasizing the professional skeptical attitude during brainstorming sessions with his or her audit team (AICPA, 2002). Bierstaker and Wright (2001) explained that the partner in charge usually considers the balance between effectiveness and efficiency of the audit engagement. Bierstaker and Wright (2001) further explained that audit planning has a significant effect on an audit team's decision, and the partner in charge usually considers the balance between effectiveness and efficiency of the audit engagement. Other academic research indicates that tone at the top could influence the subordinates' decisions, such as in ethical decisions (D'Aquila & Bean, 2003), going-concern judgments (Wilks, 2002), auditors' evaluation of evidence (Rose & Rose, 2003), and auditors' professional skepticism (Payne & Ramsay, 2005). Peecher (1996), in his study, also concluded that the partner-in-charge's analytical review affects the audit team's (or subordinates') decisions.

The MODE model states that, when people are sufficiently motivated to do so, they can construct their attitude toward a task in a purposeful manner. "When motivation is low, only strong attitudes—being chronically accessible—are likely to influence behavior" (Fazio, 1990; Fazio & Towles-Schwen, 1999). If the MODE model is applied in auditing organizations, auditors who are supervised by a high tone at the top partners will receive sufficient motivation to be skeptical, and their skeptical attitudes will be activated in a controlled manner. As a result, they will behave more skeptically. On the other hand, auditors who are supervised by low tone at the top partners will receive low motivation. In this situation, their skeptical attitudes will be activated in an automatic or spontaneous fashion as only strong attitudes are likely to influence behavior. Therefore, for this study it was predicted that auditors with strong skeptical attitudes always show high professional skeptical behavior, even when supervised by a partner with a low-tone style. However, auditors with weak skeptical

attitudes will construct only low professional skeptical behavior if they are supervised by a partner with a low-tone style.

Hypothesis 1a: When auditors have a strong skeptical attitude, there are no professional skeptical behavior differences between auditors who are supervised by high-tone partners and auditors who are supervised by low-tone partners.

Hypothesis 1b: When auditors have a weak skeptical attitude, those who are supervised by high-tone partners will have a higher level of professional skeptical behavior than auditors who are supervised by low-tone partners.

### **Auditors' Knowledge of Fraud and Professional Skeptical Behavior**

Sularso and Ainun (1999) defined auditors' knowledge related to their audit assignments to include (1) knowledge of audit techniques, (2) knowledge of types of documents and document flow within the company, and (3) knowledge about error and fraud. Knowledge of fraud in this study describes the auditor's knowledge of fraud in the financial statements and techniques in detecting fraud as listed in SAS No. 99.

An adequate knowledge of fraud was expected to improve an auditor's professional skeptical attitude, which would then lead to the auditor's professional skeptical behavior. Studies about the relationship of knowledge of fraud and skepticism have been conducted previously. Carpenter et al. (2002) showed that novice auditors who have a good knowledge of fraud have the ability to detect fraud better than auditors who did not have that knowledge. It was argued that auditors who had high levels of knowledge about fraud would have high levels of professional skeptical behavior. Fullerton and Durtschi (2005) stated that fraud-awareness training affected internal auditors' skepticism in gathering information. After training, auditors with less skeptical characteristics behave in a way that more closely reflects the behavior of naturally skeptical auditors.

Herawaty and Susanto (2008) concluded that—in determining the level of audit of financial statements—auditors' professionalism, knowledge of errors, and professional ethics have positive and significant effects on the auditor's consideration of materiality. Nelson (2009) stated that professional skepticism can be enhanced if auditors have good knowledge about the frequencies of errors and non-errors and the patterns of evidence that suggest a heightened risk of misstatement.

Training is a critical element that will help auditors in fraud prevention and detection (Saksena, 2008). Training will enhance auditors' professional skepticism by increasing knowledge (Nelson, 2009). Hammersley (2011) reported that fraud knowledge could be gained through indirect experience such as fraud education and

training. Carpenter, Durtschi, and Gaynor (2011) provided some evidence that training about forensic accounting raises students' sensitivity to the presence of fraud and implies that their level of skepticism is higher post-training.

This study proposed that auditors will behave more skeptically after they attend a workshop about fraud awareness.

Hypothesis 2. There are different levels of auditors' professional skepticism behavior before and after a fraud awareness workshop.

### Research Model

As depicted in Figure 1, this study posits that tone at the top and skeptical attitude will affect auditors' professional skeptical behavior. Furthermore, adequate knowledge of fraud is expected to improve auditors' cognition about fraud and then increase their professional skeptical behavior.

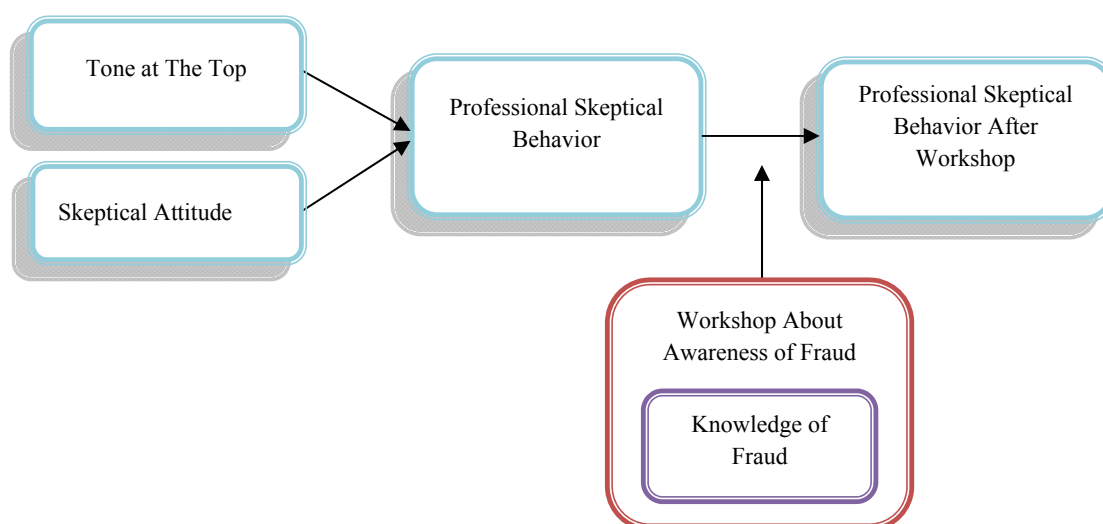


Figure 1 Research Model: The Role of Tone at The Top and Knowledge of Fraud on Auditors' Professional Skeptical Behavior

## METHODS

### Participants

This study was experimental. The participants in this study were junior auditors, senior auditors, and auditor supervisors who worked in public accounting firms in East Java. They were chosen as participants because they were practicing auditors who were dealing directly with audit evidence.



## Research Variables

The independent variables used in this study were (1) tone at the top, (2) skeptical attitude, and (3) knowledge of fraud. These were manipulated by employing different levels for each independent variable to assess the impact of each of these levels on the dependent variable. Through these manipulations, the causal effects could be demonstrated. The dependent variable in this study was the professional skeptical behavior of auditors.

### Tone at the Top

Tone at the top in this study refers to the partner-in-charge's managerial tone during an audit assignment (Carpenter & Reimers, 2007, 2009a, 2009b). This independent variable was selected at two levels: (a) high tone at the top and (b) low tone at the top. Participants in the high tone at the top situation were manipulated by receiving information that the partner in charge would like them to conduct the audit by emphasizing the effectiveness of the audit and the auditor's professional skeptical behavior. Meanwhile, participants in the low tone at the top condition were informed that the partner in charge would like them to be aware of cost and time efficiencies.

### Skeptical Attitude

An auditor's skeptical attitude includes a constantly questioning mind and critical evaluation of audit evidence (IAPI, 2011, SA section 230.06). The skeptical attitude variables were based on the Hurtt Professional Skepticism model (Hurtt, 2010), which uses six characteristics as indicators. The first three characteristics are related to the testing of audit evidence. These characteristics are (1) a questioning mind, (2) the suspension of judgment, and (3) a search for knowledge. The fourth characteristic, interpersonal understanding, is associated with an understanding of the audit evidence. The other two characteristics are associated with the disposition of a person to be skeptical based on the evidence obtained—namely, (5) self-confidence and (6) self-determination.

In the Hurtt Professional Skepticism model, participants are required to answer 30 questions related to the six characteristics of attitude of professional skepticism using a 6-point Likert scale. The scales range from (1) strongly disagree to (6) strongly agree. Scores are then computed for each experimental participant. The independent variable is manipulated by setting it at two levels: (a) strong skeptical attitude and (b) weak skeptical attitude. The skepticism of a subject is rated as strong if the score is above the average score of all participants and *weak* if the score is below the average.

## **Knowledge of Fraud**

The knowledge of fraud variable describes the auditor's knowledge of fraud in the financial statements and techniques in detecting fraud as listed in SAS no. 99. An auditor's adequate understanding of fraud is expected to improve his or her skeptical attitude, which then leads to greater professional skeptical behavior.

In accordance with the contents of the ISA 240 (IFAC, 2007), the characteristics of knowledge of fraud are divided into (1) description and characteristics of fraud, (2) the importance of exercising professional skepticism, (3) discussion among engagement personnel regarding the risk of material misstatement due to fraud, (4) obtaining the information needed to identify risks of material misstatement due to fraud, (5) identifying risks that might result in a material misstatement due to fraud, (6) assessing the identified risks after taking into account an evaluation of the entity's programs and controls, (7) responding to the results of the assessment, (8) evaluating audit evidence, (9) communicating about fraud to management, to those charged with governance, and to others, and (10) documenting the auditor's consideration of fraud.

For this study, knowledge of fraud was manipulated into two tiers: (1) adequate knowledge and (2) inadequate knowledge. To achieve this, participants were asked to follow the Audit Techniques in Detecting Fraud auditing workshop. Participants were assumed to have inadequate knowledge of fraud prior to the workshop and to have adequate knowledge after the workshop. The contents of the workshop were provided in accordance with ISA 240, as mentioned above.

## **Auditor Professional Skeptical Behavior**

Auditor professional skeptical behavior in this study was the dependent variable and was based on the work of Hurtt (1999). In his study, Hurtt aimed to develop theories and models of auditor skepticism, develop instruments to measure auditor skepticism, and test the predictions of the skeptical behavior model.

According to Hurtt (1999), the characteristics of skeptical attitude will lead to four specific auditor behaviors: (1) increased information search, (2) increased contradiction detection, (3) increased alternative generation, and (4) expanded scrutiny of source reliability. In this study, participants were provided with two cases of fraud related to an audit adapted from the auditing literature by Arens, Elder, and Beasley (2014). Each case was accompanied by four questions related to the four behaviors. Each question should be answered using a 5-point Likert scale. The scale ranges from (1) strongly disagree to (5) strongly agree. Each point on the Likert scale was weighted at 5. The first case was answered before the workshop while the second case was answered after the workshop.

### **Experimental Design and Research Variables**

The experiment used a factorial 2 x 2 design between subjects, with the independent variables being (1) tone at the top (high tone at the top and low tone at the top) and (2) skeptical attitude (strong and weak). The dependent variable was the auditor's professional skeptical behavior.

Experiments in this study were carried out in conjunction with the Audit Techniques in Detecting Fraud auditing workshops. The experimental material consisted of three parts. The first part contained a description of the respondent's personal data, the second part contained a questionnaire about the attitude of professional skepticism by auditors, and the third part contained two audit cases related to fraud. Each case was accompanied by four questions that asked about the behavior of subjects when confronted with an audit that contained indications of fraud. The first case was answered before the workshop; the second case was answered after the workshop. This experiment was conducted to determine the effect of knowledge of fraud on an auditor's professional skeptical behavior.

### **Pilot Test**

A pilot test was conducted on several auditors of a public accounting firm to determine whether there were errors in the experimental design and whether there was improper control of extraneous or environmental conditions (Cooper & Schindler, 2006).

## **RESULTS AND DISCUSSION**

### **Manipulation Checks**

To verify the effectiveness of the manipulation of tone at the top, the participants in the high tone at the top situation were asked to answer the following question: "Did your supervisor ask you to conduct the audit by always being concerned with the effectiveness of an audit and focus on the auditor's professional skeptical behavior?" Participants in the low tone at the top situation were asked to answer the following question: "Did your supervisor ask you to conduct the audit by always being concerned with cost and time efficiencies?" Participants answered with a YES or NO response. If they responded consistently with the manipulation, then they passed the manipulation check, and the data were used. The total numbers of participants were 64 auditors, of which two of them failed the manipulation check. Therefore, the sample size for the analysis was 62 auditors.

## Descriptive Statistics

The data from 62 auditors were used in the experiment. Participants comprised 33 males (53%) and 29 females (47%), of which 20 are senior auditors (32%) and 42 junior auditors (68%). Descriptive statistics concerning the measurement scales show that the Cronbach's alpha values for the scales of skeptical attitude are acceptable, 0.747 (Nunally, 1978, indicated that alpha coefficients above 0.60 are acceptable for exploratory research). One-sample Kolmogorov Smirnov tests and an examination of the histograms indicate that the measurement scales are approximately normally distributed.

## Test Result of Hypothesis 1

In order to examine the relationships among skeptical attitude, tone at the top, and professional skeptical behavior, participants were divided into four groups based on their skeptical attitude and the style of their supervisor. The allocation of participants to each group and the average of the professional skeptical behavior of each group are presented in Table 1.

Table 1 The Means of Auditors' Professional Skeptical Behavior

Description	Total Auditor	Means
Strong Skeptical Attitude, High TAT* (Group 11)	15	93.0000
Strong Skeptical Attitude, Low TAT (Group 12)	14	83.9286
Weak Skeptical Attitude, High TAT (Group 21)	12	88.7500
Weak Skeptical Attitude, Low TAT (Group 22)	21	70.7143
TOTAL	62	82.5806

\*TAT = Tone at the top

An ANOVA was run to examine hypotheses 1a and 1b. The result of the test of between-subjects effects is as follows. The main effect of skeptical attitude ( $p = 0.034$ ) and tone at the top ( $p = 0.001$ ) on auditors' professional skeptical behavior was significant. The interaction effect of skeptical attitude and tone at the top ( $p = 0.269$ ) on auditors' professional skeptical behavior was not significant.

The one-way ANOVA was conducted to compare the professional skeptical behaviors between Groups 11 and 12 (hypothesis 1a) and between Groups 21 and 22 (hypothesis 1b) of participants. The results of the post-hoc test are shown in Table 2.

The results of the one-way ANOVA analysis support hypothesis 1a. The post-hoc test in the one-way ANOVA analysis showed no differences in professional skeptical behavior ( $p = 0.527$ ) between Group 11 (mean = 93) and Group 12 (mean = 83.9286) participants. Groups 11 and 12 comprised auditors who had strong skeptical attitudes. Auditors in Group 11 were supervised by high tone at the top partners whereas auditors in Group 12 were supervised by low tone at the top partners.

Table 2 Post hoc test  
Multiple Comparisons of Auditor's Professional Skeptical Behavior

Auditors' Professional Skeptical Behavior (I)	Auditors' Professional Skeptical Behavior (J)	Mean Difference (I - J)	Std. Error	Sig.
Group 11 Mean = 93.00	Group 12 Mean = 83.9286	9.07143	5.75687	.527
	Group 21 Mean = 88.7500	4.25000	5.99988	.979
	Group 22 Mean = 70.7143	22.28571 *	5.23713	.000
Group 12 Mean = 83.9286	Group 21 Mean = 88.7500	-4.82143	6.09438	.963
	Group 22 Mean = 70.7143	13.21429	5.34512	.090
Group 21 Mean = 88.7500	Group 22 Mean = 70.7143	18.03571 *	5.60601	.011

The results also support hypothesis 1b, showing a significantly higher ( $p = 0.011$ ) professional skeptical behavior of auditors in Group 21 (mean = 88.750) than auditors in Group 22 (mean = 70.7143). Groups 21 and 22 comprised auditors who had weak skeptical attitudes. Auditors in Group 21 were supervised by high tone at the top partners, while auditors in Group 22 were supervised by low tone at the top partners.

The results of this study were consistent with the MODE model. Auditors in Group 11 had a strongly skeptical attitude and were supervised by high tone at the top partners. According to the MODE model, auditors in Group 11 were sufficiently motivated because their partner's style supported the attitude of professional skepticism. Therefore, the skeptical attitudes of auditors in Group 11 were activated in a controlled or deliberative mode so that their attitudes guided their behavior. Consequently, the strong attitude of skepticism of auditors in Group 11 was consistent with their high professional skepticism behavior, as shown by the comparative professional skeptical behavior among the four groups of auditors in which auditors in Group 11 had the highest professional skeptical behavior (mean = 93).

Auditors in Group 12 received low motivation because they were supervised by low tone at the top partners. Therefore, their skeptical attitudes were activated in an automatic or spontaneous manner, and only a strong attitude constructed the skeptical behavior. This was supported by the results of the test, which showed that there was no difference in auditors' professional skeptical behavior in Groups 12 and 11 as a group with the highest skeptical behavior score.

Auditors in Groups 21 and 22 had weak skeptical attitudes. Auditors in Group 21 received sufficient motivation because they were supervised by high tone at the top partners; consequently, their skeptical attitudes were activated in a controlled mode, which constructed a more highly professional skeptical behavior. However, auditors in Group 22 received only low motivation because they were supervised by low tone at the top partners. In these circumstances, their skeptical attitudes were activated under an automatic or spontaneous mode, and only auditors with a strong skeptical attitude behaved skeptically. Auditors in Group 22 had weak skeptical attitudes; thus, they failed to behave skeptically. The test results showed that auditors' professional skepticism in Group 22 was lower than that in Group 21.

Based on this description, it appears that auditors' level of skepticism depended on their supervisors' managerial tone. If the auditor is supervised by a partner in charge with a high tone style, then the auditor can demonstrate more skeptical behaviors. A partner in charge with a high tone style is more focused on audit effectiveness and requires that audit procedures be conducted in accordance with auditing standards. A supervisor's high tone at the top style provides sufficient motivation for auditors to activate their skeptical attitudes and then construct their professional skeptical behavior. Therefore, despite an auditor having a weak skeptical attitude, the motivation of the leadership and an environment that expects the auditor to be skeptical will encourage auditors to behave in a professionally skeptical manner. These results are consistent with the professional standard requirement that partners set the "proper" tone at the top (AICPA, 2002) and that the auditor should be skeptical and prove all clients' information before taking it into account (AICPA, 2002).

### **Test Results of Hypothesis 2**

Hypothesis 2 states that an auditor who has an adequate knowledge of fraud will demonstrate more skeptical behavior than an auditor who has no knowledge of fraud. To examine this hypothesis, experiments were conducted in conjunction with the Audit Techniques in Detecting Fraud auditing workshops. Participants were faced with two kinds of fraud cases, where each case was accompanied by questions about how they would behave when faced with those cases. Questions from the first case were answered by the participants before the workshop took place, while the questions from the second case were answered after the workshop.

A paired samples *t*-test was used to examine whether there were differences in auditors' professional skeptical behavior before and after the workshop. Further analysis was needed to examine auditors' professional skeptical behavior for each group of auditor before and after the workshop. Therefore, the paired samples *t*-test

was run for each group of auditors. The test results for all auditors and for each group of auditors are shown in Table 3.

Table 3 Paired samples *t* test  
Differences of Auditors' Professional Skeptical Behavior before and after The Workshop

Auditor	N	Mean		Mean Differences (I - J)	<i>t</i>	<i>df</i>	Sig. (2 tailed)
		Auditors' professional skeptical behavior Before workshop (I)	After workshop (J)				
All Auditors	62	82.5806	89.1129	-6.53226	-3.087	61	0.003*
Group 11	15	93.0000	98.0000	-5.00000	-2.646	14	0.019*
Group 12	14	83.9286	92.5000	-8.57143	-2.280	13	0.040*
Group 21	12	88.7500	97.5000	-8.75000	-2.224	11	0.046*
Group 22	21	70.7143	75.7143	-5.00000	-0.960	20	0.349

Table 3 indicates that a significant difference ( $p = 0.003$ ) occurred between the auditor's professional skeptical behavior before (mean = 82.5806) and after the workshop (mean = 89.1129). This result supports hypothesis 2, that there is a significant improvement in the auditors' professional skeptical behavior after attending the workshop. Hence, it can be concluded that knowledge of fraud improved the auditors' professional skeptical behavior.

The comparison of auditors' professional skeptical behavior between the groups showed that auditors' professional skeptical behavior in Groups 11, 12, and 21 increased significantly (respectively:  $p = 0.019$ ;  $p = 0.040$ ;  $p = 0.046$ ) after the workshop, but there was no significantly increased ( $p = 0.349$ ) in professional skeptical behavior in Group 22. This means that, although knowledge of fraud had an important role in increasing an auditors' professional skeptical behavior, knowledge of fraud failed to improve professional behavior of the auditors in Group 22, who had weak skeptical attitudes and were supervised by low tone at the top partners. Knowledge improved skeptical behavior only for those auditors who had a weak skeptical attitude and if they were supervised by high tone at the top partners.

## CONCLUSION

Auditors should maintain professional skepticism during the audit engagement, especially when there are indications of fraud in the audited entity. Without behavioral

skepticism, fraud is often difficult to detect because fraud is usually concealed by the perpetrators. The purpose of this study is to investigate the influence of skeptical attitude, tone at the top, and knowledge of fraud on auditors' professional skeptical behavior.

The results of this study showed that the role of tone at the top was essential in improving subordinates or auditors' task performance. Several findings in this study support the conclusion from the results. First, skeptical attitude, tone at the top, and auditors' knowledge of fraud influence auditors' professional skeptical behavior. Second, a supervisor who has a high tone at the top style will play an important role in maintaining and improving auditors' professional skeptical behavior, particularly for auditors who have a weak skeptical attitude. This result supported the attitudes–behavior relationship described by Fazio (1990) in the MODE model. Auditors who have sufficient motivation such as high tone at the top supervision may adjust their attitude and thus behave more skeptically.

Third, fraud knowledge gained through training can improve auditors' professional skeptical behavior. Further analysis showed that knowledge of fraud improved skeptical behavior only among those auditors who had a weak skeptical attitude and if they were supervised by high tone at the top partners. Knowledge of fraud did not influence auditors' professional skeptical behavior if they had a weak skeptical attitude and were supervised by low tone at the top partners.

## **IMPLICATIONS AND FURTHER RESEARCH**

### **Implication to Body of Knowledge**

This study extends the findings of Carpenter and Reimers (2009a, 2009b), who investigated the effects of the partner's emphasis on professional skepticism and the presence of fraud on auditors' identification of fraud risk factors, auditors' fraud risk assessments, and their selection of audit procedures. This study examines the interaction effect of tone at the top and skeptical attitude on professional skeptical behavior.

This study also extends the work of Herawaty and Susanto (2008), who examined the level of audit of financial statements, and found that professionalism, the auditor's knowledge of errors, and professional ethics all have a positive and significant effect on the auditor's consideration of materiality. This study finds that the knowledge of fraud can improve professional skeptical behavior.



### **Practical Implications**

The results of this study provide a better understanding for auditors, standards setters, and academicians about the important role of high tone at the top supervision as the motivation to increase auditors' professional skeptical behavior and, thus, improve auditor's task performance. The study also suggests that knowledge of fraud can improve the auditors' professional skeptical behavior. However, knowledge does not affect auditors' skeptical behavior if they have a weak skeptical attitude and are supervised by a partner with a low tone at the top. These findings provide information for partners of public accounting firms that maintaining a high tone at the top supervision style is essential in every audit as such supervisors can motivate their auditors to behave skeptically by having a questioning mind and making critical assessments of audit evidence. These results support the standard-setters' requirement that partners should set the proper tone at the top for auditors' evaluation of fraud (IAPI, 2011).

The results of this study also show the importance of auditors' understanding of auditing standards, which require auditors to be skeptical at all times (IAPI, 2011). Therefore, it is necessary to train auditors about fraud in the financial statements and techniques for detecting fraud as required by auditing standards. This training is important because most auditors are not experienced with fraud during their careers (Montgomery et al., 2002; Pany dan Whittington, 2001). Having an adequate knowledge of fraud is expected to improve an auditor's professional skeptical attitude, which would then lead to the auditor's professional skeptical behavior. This training can be done on a regular basis to maintain auditors' skepticism.

### **Limitations of the Study**

This study has several limitations. First, the research results are based on the effect of only one 1-day workshop, with auditors' knowledge of fraud on professional skeptical behavior being compared before and after exposure to the training. Nothing is revealed about how persistent the new learning will be. To ensure that auditors' knowledge is effectively retained, research is needed to examine these effects by conducting follow-up training and/or testing. The second limitation is that this study examined only two levels of partner style, high tone and low tone, whereas there are intermediate partner styles as well. Future research should investigate three or more of these styles.

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