UDC 331

AUDITOR PERCEPTION OF RED FLAGS EFFECTIVENESS TO DETECT FRAUD: A STUDY AT PUBLIC ACCOUNTING FIRM IN EAST JAVA

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ABSTRACT

This study aims to identify auditor's perception of the effectiveness of red flags in detecting fraud and examine the effect of competency factors (education, experience detecting fraud, training on fraud) on auditor perceptions. Based on these objectives, the researchers feel the use of the mix method approach can get optimal results. This study uses primary data collected using a questionnaire distributed to all auditors working at Public Accountant Office in East Java registered with the Financial Services Authority in Indonesia. Interviews were conducted only at one Public Accountant Office in East Java to strengthen the results of the study. A total of 94 data can be processed using SmartPLS and the result is a study model that can explain 53% the effectiveness of red flags to detect fraud. The results of this study are the construct of education, the experience of detecting fraud, and training on fraud affect the effectiveness of red flags to detect fraud. Based on interviews with several auditors at Public Accountant Office in East Java, illustrating that fraud can be detected quickly if the auditor is increasingly conducting audits using existing red flags. The implication of this study is that Public Accountant Office has to conduct more training for its employees and choose employees based on their level of education. For auditors, it is recommended to use red flags to detect fraud.

KEY WORDS

Fraud, red flags, education, experience detecting fraud, training on fraud.

The case of financial statement fraud became a hot topic that seized the attention of regulators, auditors, and the public. Starting with the collapse of one company in the United States, Enron Corporation in 2001 which finally revealed that the accounting scandal was the mastermind behind this event. Xerox, Merck, Tyco and Global Crossing followed bankruptcy due to the same thing. Similar cases also occur in Indonesia. One of them is Lippo Bank because of inaccurate financial data that cannot be captured by the audit team.

External auditors have an important role to help a company to prevent and detect fraud in the company. Detecting fraud is not easy because it requires special knowledge about the nature of fraud, why it is done, and how it is done (Kassem and Higson, 2012). Various efforts can be made to detect fraud. One way is to detect company financial statements by applying financial statement analysis to identify red flags for fraudulent financial statements. Red flags are early warning signals, which are potential symptoms that require in-depth investigation that indicate a higher risk of misstatements that are intentionally reported in the financial statements. By using red flags, it can help the auditor to reduce the risk of fraud being detected in the financial statements.

The regulation stated in SAS No. 99 that external auditors must use 42 red flags to detect possible fraud on financial statements. In this standard the auditor has the obligation to identify and assess the risk of fraud committed by the client and how the auditor responds that risk.

Each auditor has various perceptions of the level of effectiveness of red flags because the application of red flags is strongly influenced by various individual factors. Research conducted by Moyes and Baker (2009) shows the influence of auditor demographic factors such as gender, job position, auditor tenure, education, experience, and training on auditor's perceptions of red flags assessments on internal auditors, external auditors, and government auditors in Malaysia. In addition, Moyes and Baker (2009) found that female auditors and

auditors with higher education were more likely to detect fraud using red flags. The results of the research by Hegazy and Kassem (2010) show the influence of tenure on the auditor's perception of the effectiveness of red flags. This was supported by Montgomery et al. (2002) who found that the auditor would have difficulty detecting fraud if he had never received the assignment during his career. In addition to experience, one of the ways auditors improve audit instinct is by attending training on how to detect fraud. Yang et al. (2009) found that auditors who had attended training would have a sharper instinct to detect fraud.

The occurrence of a lot of fraud certainly needs serious attention from various parties, especially external auditors who are expected to uncover the fraud that occurred. Research that examines this research topic is still rarely done in Indonesia. Thus, this research wants to test this topic on the scope of external auditors working in public accounting firms throughout East Java, Indonesia. Based on the explanation above, research related to the effectiveness of red flags is very important and interesting.

LITERATURE REVIEW

Perception is a psychological factor that has an important role in influencing a person's behavior. Kotler and Armstrong (2008: 174) define perception as the process of someone choosing, organizing, and interpreting information to form a picture. Gibson, Ivancevich, and Donnely (1997) add that perception is the process of giving meaning to the environment by individuals. From the two meanings above it can be concluded that each individual has a different perspective from one another to the stimulus provided.

Statement on Auditing Standards No. 99 defines fraud as "an intentional act that results in a material misstatement in financial statements that are the subject of an audit". From this understanding it can be concluded that an act of fraud or fraud is a crime and an act that intentionally and irresponsibly hides material facts to gain personal gain and harm another party.

Early signs that show unusual symptoms sometimes appear in cases of fraud, but the presence of these symptoms does not mean that there has actually been fraud. In some cases, sometimes red flags have been found by companies, but have not been followed up optimally. This signal is an early warning detection used by internal and external auditors for further analysis and evaluation of the possibility of fraud (Amrizal, 2004). SAS No. 99 highlights the importance of fraud detection by requiring auditors to specifically assess the risk of material misstatement.

The auditor's perception of the effectiveness of using red flags in general is influenced by competency aspects. The auditor's competency factors include education, experience using red flags when detecting fraud, and training about fraud.

The auditor's perception of the effectiveness of the use of red flags is generally influenced by two aspects, namely demographic factors and competence. Based on the explanation that has been described previously, then the framework of this research framework can be delivered in Figure 1 below.
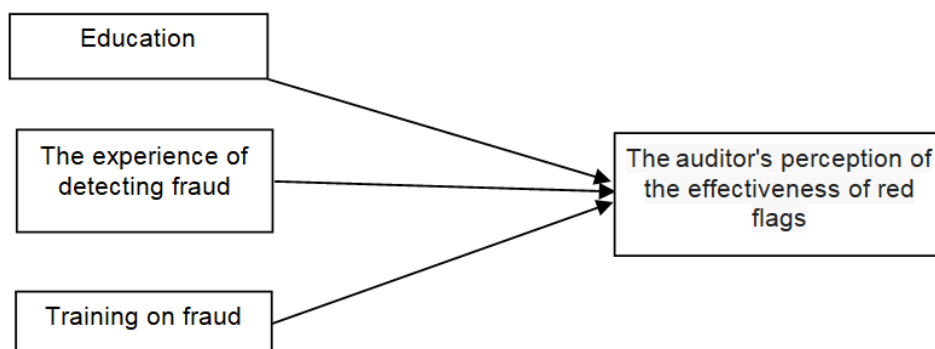

Figure 1 – Chart of Research Conceptual Framework

The level of formal education pursued by the auditor will affect the mindset of the auditor when making decisions. This explains that the higher the auditor's education, the more extensive the knowledge possessed and will have an impact on the quality of the assignment work that has been given, namely detecting fraud by using red flags. Rustiarini and Novitasari (2014) support the theory. Moyes and Baker (2009) also show that auditor education will increase the use of red flags in detecting fraud. Based on the description above, then the hypothesis can be formulated as follows:

H1: The level of education influences the auditor's perception of the effectiveness of red flags in detecting fraud.

Robbins and Coulter (2010: 55) explain that the factors that can influence perception can originate from within the perceiver, in the perceived target, or in the situation in which the perception occurs. Smith et al. (2005) found that the auditor's success in detecting fraud which was previously a significant variable for detecting fraud. Based on the description above, then the hypothesis can be formulated as follows:

H2: The experience of detecting fraud influences the auditor's perception of the effectiveness of red flags in detecting fraud.

According to Rustiarini and Novitasari (2014), the knowledge obtained by auditors through training has the same quality as the knowledge gained based on experience. Research conducted by Moyes and Baker (2009) also shows that auditors who have attended training on red flags will have a better ability to detect fraud. Based on the description above, then the hypothesis can be formulated as follows:

H3: Training on fraud influences the auditor's perception of the effectiveness of red flags in detecting fraud.

METHODS OF RESEARCH

The population of this research is all auditors who work at Public Accountant Firms registered with the Indonesia's Financial Services Authority in 2017. Sampling in this study was carried out with a simple random sampling technique based on the following criteria: (1) auditors working at public accounting firms in East Java, Indonesia; (2) levels of junior auditors, senior auditors, supervisors.

Data collection is done by using a questionnaire by distributing questionnaires to the Public Accounting Firm in East Java. Before the questionnaire was distributed to the sample researchers had conducted a pre-test in the form of:

1. Translating native instruments into Indonesian;

2. Giving negative questions on several items in the questionnaire so that the questionnaire is not biased and discuss the meaning of each indicator in several auditors.

After conducting the pre-test further the researchers conducted a pilot test. Pilot test is conducted to determine the validity and reliability of the instrument. Survey techniques have several problems such as questions that are not understood and the respondent does not respond. To improve the quality of the survey researchers will do several things, namely:

1. Attach a covering letter given together with the questions given to each respondent;

2. Do not include the column related to giving the name of the respondent;

3. Notifying the last due date of the survey must be responded to;

4. Conduct an interview with one auditor from one KAP in East Java.

The statistical method used to test the hypotheses proposed in this study is Partial Least Square (PLS) with the help of the SmartPLS program ver. 2.0 M3. Evaluation of the model in PLS is done by evaluating the outer model and the inner model. Outer model is a measurement model to assess the validity and reliability of the model (Hartono, 2009: 57). Researchers in this study will test the validity of items in each construct through testing the construct validity, namely the convergent validity test and the discriminant validity test. The inner model is a structural model for predicting causality between latent variables (Hartono and Abdillah, 2009: 57). The PLS structural model is tested by measuring R2 and path coefficients through comparison of t-statistics with t-table values on the smartPLS output.

RESULTS AND DISCUSSION

In this study, it was obtained through a field survey by distributing questionnaires to respondents and visiting respondents directly at the Public Accounting Firm. Researchers have distributed questionnaires totaling 122 copies with a rate of return of respondents 78.69 percent and a rate of return that can be analyzed at 77.05 percent.

Table 1 shows that the total number of questionnaires distributed to respondents was 122 questionnaires, returned 96 questionnaires and after being examined there were 2 questionnaires that were aborted because there were several answers that were not filled in completely so that overall worthy of being used for further analysis was 94 questionnaires. This research is feasible to proceed because based on the central limit theorem states that the minimum number of samples to look for a normal curve at least reaches the minimum respondent value of 30 (Rahayu, 2014).

Table 1 – Data collection and return samples

Description	Questionnaire Amounts
Total questionnaires distributed	122
The questionnaire was not returned	26
The questionnaire was returned	96
Incomplete questionnaire	2
The questionnaire used in the analysis	94
Response Rate	78.69%
Useable Response Rate	77.05%

Source: Primary Data Processed, 2019.

Respondent characteristic data is respondent data collected to find out the respondent's profile. Respondents in this study are auditors who work at the Public Accountant Office in East Java registered with the Financial Services Authority, with a total sample of 94 people. Respondent characteristics discussed in this study include position, education level, and work experience which can be seen in Table 2.

In the first part explained the characteristics of respondents who show the number of respondents based on position. Junior auditor respondents were 51 people (54 percent) and senior auditor positions were 43 people (46 percent). In the second part, it is explained about the respondent's gender.

In the third section regarding educational background shows that diploma education level is 11 people (12 percent), respondents with S1 education level are 57 people (61 percent), and respondents with S2 education level are 21 people (22 percent), and respondents with S3 level of education is 5 people (5 percent). The fourth part of the work period shows that the working period of 0-2 years is 33 people (35 percent), the working period of 2-5 years is 20 people (21 percent), the working period of 6-10 years is 21 people (22 percent), working period of 11-15 years is 17 people (18 percent), and working period of more than 15 years is 3 people (3 percent).

This study model consists of seven constructs, namely the effectiveness of red flags, education level, experience of detecting fraud, and training on fraud. Each construct consists of three to six indicators that are assessed using a Likert scale of one to five. Evaluation of the model in this study was carried out through the outer model and the inner model. Outer model or measurement model is a stage to evaluate the validity and reliability of a construct. Inner Model or structural model is a stage to evaluate the influence between constructs. Based on the results of the validity and reliability test, it is stated that all constructs are valid and reliable.

Table 2 – Characteristics of Respondents

NO.	Characteristics of Respondents	Amount	
		(People)	Percentage (%)
1.	Position		
	Junior Auditor	51	54
	Senior Auditor	43	46
	Total	94	100
2.	Education		
	Senior High School	0	0
	Diploma	11	12
	Bachelor Degree	57	61
	Master Degree	21	22
	Doctoral Degree	5	5
	Total	94	100
3.	Working Period		
	0 – 2 years	33	35
	2 – 5 years	20	21
	6 – 10 years	21	22
	11 – 15 years	17	18
	>15 years	3	3
	Total	94	100

Source: Primary Data Processed, 2019.

Structural model test results are evaluated using R2 values and significance tests through the path coefficient or t-values for each path. The results of the significance of the path coefficient values can be seen in Table 8. In Table 3 it can be seen that the R2 for audit judgment is 0.53. This explains that the education level construct, the experience of detecting fraud, and training on fraud is able to explain the construct effectiveness of red flags by 53%, the remaining 47% is explained through other variables outside the proposed model.

Table 3 – Hypothesis Testing Results with SmartPLS

Independent Variables	Effectiveness of red flags
Education	0.11
	(1.681)
Experience detecting fraud	0.21*
	(1.910)
Fraud Training	0.19*
	(1.775)
R^2	53%

*Significant at 5% alpha.

Significance test is obtained through comparison of t-statistics with t-table. The hypothesis developed in this study uses one-tailed hypothesis testing. The one-tailed T-table hypothesis for a significance level of 5% is > 1.645. Based on Table 8 it can be concluded that H1, H2 and H3 are accepted. Following is a description of each construct's hypothesis testing on the effectiveness of red flags in detecting fraud.

Hypothesis 1 (H1) states that education influences the effectiveness of red flags. The test results in Table 8 show the statistical value of t is 1.681 (> 1.645), it can be concluded that H1 is accepted. The coefficient value of 0.11 shows that the educational construct can explain as much as 11% The effectiveness of red flags in detecting fraud.

Hypothesis 2 (H2) states that the experience of detecting fraud influences the effectiveness of red flags. The test results in Table 3 show the statistical value of t is 1.910 (> 1.645), it can be concluded that H2 is accepted. The coefficient value of 0.21 shows that the construct of experience detecting fraud can explain 21% of the effectiveness of red flags in detecting fraud.

Hypothesis 3 (H3) states that training on fraud influences the effectiveness of red flags. The test results in Table 8 show the statistical value of t is 1.775 (> 1.645), it can be concluded that H3 is accepted. The coefficient value of 0.19 shows that the training construct on fraud can explain as much as 19%.

Discussion on the Effects of Education on the Effectiveness of Red Flags

The test results obtained empirical evidence that H1 was accepted. This means that the level of education has an effect on the effectiveness of red flags. This means that the higher the level of one's education, the more effective the use of red flags is in detecting fraud. This empirical evidence is consistent with studies conducted by Rustiarini and Novitasari (2014) and Moyes and Baker (2009).

Rustiarini and Novitasari (2014) conducted a study on 86 Rural Credit Banks in Bali Province which found that the level of education affected the determination of the effectiveness of red flags in detecting fraud. The higher the auditor's education, the more extensive knowledge he has so that it will affect the ability to make decisions. Moyes and Baker (2009) also revealed the same thing related to the relationship between the two constructs. In his study it was stated that auditors with master's education would use red flags better than auditors who did not have a degree.

Several studies have been conducted to obtain empirical evidence that the level of education has a positive effect on the effectiveness of red flags in detecting fraud. Testing the effect of gender on the effectiveness of red flags has been carried out in a variety of different auditors. Thus, it can be concluded that the influence of education on the effectiveness of red flags has been proven. This empirical evidence has the implication that the higher the auditor's education level will increase the auditor's analysis power in detecting fraud.

Discussion on the Effect of Experience Detecting Fraud on the Effectiveness of Red Flags

The test results obtained empirical evidence that H3 was accepted. This means that the more experience in detecting fraud, the use of red flags will also be more effective in detecting fraud. The results of this study are consistent with research conducted by Rustiarini and Novitasari (2014); Moyes and Baker (2009); Robbins and Coulter (2010); Smith et al. (2005).

Rustiarini and Novitasari (2014) conducted a study on 86 Rural Credit Banks in Bali Province, finding that the experience of detecting fraud affected the effectiveness of red flags in detecting fraud. Experienced internal auditors are able to recognize items in the financial statements that are distorted, besides the auditor will have a strong argument for all opinions expressed. Moyes and Baker (2009) also found that experience in detecting fraud would affect the auditor's perception of the effectiveness of red flags in detecting fraud.

Several studies that have been conducted obtain empirical evidence that the experience of detecting fraud has a positive effect on the effectiveness of red flags in detecting fraud.

Testing the influence of the experience of detecting fraud has been carried out in various types of auditors. Thus, it can be concluded that the influence between the experience of detecting fraud on the effectiveness of red flags This empirical evidence has implications that auditors who have experience detecting fraud will be more effective in the use of red flags.

Discussion on the Effects of Training on Fraud on the Effectiveness of Red Flags

The test results obtained empirical evidence that H3 was accepted. This means that training on fraud affects the effectiveness of red flags in detecting fraud. The results of this study are consistent with research conducted by Rustiarini and Novitasari (2014) and Moyes & Baker (2009).

Rustiarini and Novitasari (2014) conducted a study on 86 Rural Credit Banks in Bali Province which found that training on fraud affected the effectiveness of red flags in detecting fraud. Internal auditors who often have even attended training will have the same knowledge as the knowledge from previous experience. Auditor sensitivity to these signs will arise if auditors are often included in training on fraud. Moyes and Baker (2009) also found that auditors will have higher abilities when auditors have attended fraud training.

Testing the effect of training on fraud on the effectiveness of red flags has been carried out in various different types of auditors. Thus it can be concluded that fraud training influences the effectiveness of red flags in detecting fraud. This empirical evidence has the implication that public accounting firms can more often provide facilities to their auditors so that they often attend training on fraud.

The Auditors Perception of Red Flags

To sharpen the auditor's perception of the use of red flags in the audit process, this study tried to conduct interviews with several auditors working on one of the KAPs in Malang. Based on the results of interviews with related auditors, the following are stated:

"...Fraud can be done by anyone. Those who have the opportunity, desire, and access can commit fraud. My job as an auditor is to look for loopholes in a series of ways that have been designed by people who commit fraud. Finding loopholes is not easy for a new auditor. Even fresh graduates and the best graduates will have difficulty finding fraud if it is not directed either by their supervisors or by their colleagues. Therefore it is very necessary to have a supervisor.... "

"Red flags can help auditors show whether someone is guilty or not. Fraud is a deliberate crime, not an accidental mistake made by the user. The auditor must be able to distinguish between intentional and unintentional mistakes through sampling or looking at the standard operating procedures applicable in the company. Weak SOPs will be more easily utilized by parties who are not responsible for committing fraud. I am greatly helped by the existence of red flags because it is one of my references in finding fraud. "

"I think education is very influential on the use of red flags in finding fraud. For example, people with senior high school education must have a different analytical power than those who are bachelor. A person with higher competence, I think, will use his senses more in finding fraud. In our office we have a minimum competency equivalent to an undergraduate accounting with competencies such as CPA, CA, CFP, BKP, and others. Additional training and degrees will make it easier for auditors to work. "

"The more experienced an auditor is, the more efficient the auditor is to find fraud by using red flags. Auditors can identify the existence of red flags By looking at employee lifestyles, management, changing habits. Experienced auditors can also see from accounts in the financial statements. For example there are oddities in cash accounts, payroll, inventory, and others. Experienced auditors will find it easier to find unusual transactions in some of these accounts. This is one concrete example that I met when auditing a company in Denpasar, I audited with my senior who had a difference of 5 years with me, with the experience he had, he seemed more confident and better in the process of finding fraud. By just looking at the trial balance, he can analyze the discrepancies in it. "

"Adequate training and updates must be done by the auditor. I think the auditor will be easier to detect fraud when he is more updated on the development of accounting science.

This happens because the auditor is accustomed to training sensitivity about fraud. In addition, in training we often meet with various auditors from various public accounting firms and companies. We often exchange ideas and experiences. This is very exciting and become a special experience for us. We have more references in conducting the audit process. Audit is easy and difficult. Audit is an art. Especially with our obligation to detect fraud, this is a challenge for us. In our office, each person is allocated a minimum of training every year and a maximum of 3 times each year. I am very grateful for the opportunity given by the office. "

Based on the interview summary above, it can be concluded that the auditor's perception in using red flags in detecting fraud is very good. The auditor voluntarily and greatly helped by the existence of red flags. The auditor also agreed with the influence of education, experience, and training can improve the effectiveness of the use of red flags in detecting fraud in financial statements.

CONCLUSION

This study aims to examine the determinants of the effectiveness of red flags for detecting fraud by senior and junior auditors at the Public Accounting Firm in East Java. The results of this study conclude that the effectiveness of using red flags to detect fraud is determined by education, experience detecting fraud, and training regarding fraud. Education affects the effectiveness of red flags in detecting fraud because the higher the level of one's education, the higher the level of analysis. The experience of detecting fraud affects the effectiveness of red flags in detecting fraud because if someone has found red flags in the audit process, then the auditor will better understand the symptoms of fraud. Training on fraud affects the effectiveness of red flags in detecting fraud because the more often auditors are given training related to fraud; the easier it is to find symptoms of fraud when detecting fraud.

This study has limitations and weaknesses. Some of these limitations and weaknesses are; (1) this research is still on the individual aspects, namely on the dimensions of Education, experience detecting fraud, and training on fraud. The next researcher should develop by adding other variables.

Suggestions for the same subject and subject are (1) subsequent researchers can conduct research in other provinces, so the results can be generalized more broadly to strengthen external validity, (2) further research is suggested to add variables that affect the effectiveness of red flags.

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