Determinants of Auditor management in Detecting Fraud in the Education Sector: Empirical Study on Public Accounting Firm

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ABSTRACT

This study aims to examine the determinants of auditor management in detecting fraud within the education sector, specifically analyzing the influence of audit delay, audit fee, whistleblowing system, and workload through the lens of attribution theory. The empirical object of the research comprises auditors working at public accounting firms in Surabaya, Indonesia. Employing a quantitative approach, primary data were gathered through the distribution of structured questionnaires to 109 auditors across 55 accounting firms. Data analysis was conducted using Structural Equation Modeling with the Partial Least Squares (SEM-PLS) method, version 4.00. The findings reveal that audit delay, audit fees, and workload exert a significant positive effect on auditors' ability to detect fraud. Conversely, the whistleblowing system does not show a statistically significant impact. These results suggest that longer audit engagement periods, sufficient financial incentives, and increased workload intensity may enhance auditors' diligence and cognitive alertness in identifying fraudulent practices within educational institutions. However, the whistleblowing mechanism appears underutilized or insufficiently integrated into audit procedures. This study contributes theoretically by reinforcing the applicability of attribution theory in the context of audit decision-making. From a practical perspective, the findings encourage public accounting firms to optimize auditor workload distribution, ensure fair audit compensation, and enhance the operational effectiveness of whistleblowing systems as complementary tools in fraud detection processes within the education sector.

INTRODUCTION

Fraud in financial statements remains a serious concern due to its detrimental impact on audited entities, stakeholders, and the public at large (Arnanda et al., 2022). According to the 2019 survey conducted by the Association of Certified Fraud Examiners (ACFE) Indonesia, 22 cases (9.2%) of fraud occurred in the form of financial statement manipulation. A prominent example is the alleged fraud involving Indofarma Tbk, which resulted in a state los of IDR 371.8 billion, despite the company having received an unqualified audit opinion (CNBC Indonesia, 2024) This case illustrates that current audit systems are not fully effective in detecting hidden financial irregularities. The inability of auditors to uncover fraud is not solely due to technical or procedural limitations, but is also influenced by managerial and psychological factors, both internal and external to the auditor (Wirawan & Prasetyo, 2021).

Reports from the Financial Services Authority (OJK) and the Financial and Development Supervisory Agency (BPKP) have revealed that accounting manipulation is prevalent at the regional level, including in Surabaya— the focal area of this research (BPKP Jawa Timur, 2024).

In this context, it becomes crucial to empirically examine the various determinants that influence auditors' ability to detect fraud, particularly in the education sector. Educational institutions—whether public or private—are increasingly managing large-scale financial transactions, rendering them vulnerable to fraudulent practices. As such, auditors operating in this domain must not only demonstrate technical proficiency but also possess strong managerial judgment and ethical commitment. To explore the cognitive and behavioral aspects of auditors, this study adopts attribution theory, initially proposed by Fritz Heider (1958), which explains how individuals assign causality to observed events or behaviors (Utama & Rohman, 2023; Yessie, 2020). In audit settings, auditors are expected to make appropriate causal attributions regarding irregularities through the application of professional skepticism and objective assessments of both internal and external client factors (Hotimah & Kuntandi, 2024). Nevertheless, in practice, many cases—such as Indofarma— demonstrate that auditors often fail to identify long-standing fraud.

This gap between theoretical expectations and auditing realities indicates a limitation in the application of attribution theory within audit practice (Febriana et al., 2024; Gracia, 2021). Several factors—such as audit delay, audit fee, whistleblowing systems, and workload— may compromise the auditor's ability to objectively attribute financial discrepancies. Although each of these factors has been studied individually, there is a lack of comprehensive research examining their combined effects using attribution theory, particularly in regional settings like Surabaya (Santosa et al., 2024, Yuwono, 2025).

This study aims to analyze the influence of audit delay, audit fee, whistleblowing systems, and auditor workload on the ability to detect fraud in the education sector, using attribution theory as the conceptual framework. The study focuses on auditors employed at Public Accounting Firms (PAFs) in Surabaya, with the objective of offering empirical insight into both the managerial and psychological determinants of effective fraud detection in audit processes. Methodologically, this study employs a quantitative approach and tests four main hypotheses developed based on theoretical foundations and prior empirical findings. First, audit delay is hypothesized to negatively affect the auditor's ability to detect fraud. Second, audit fees are expected to have a positive influence, as adequate compensation may enhance auditor motivation. Third, whistleblowing systems are assumed to positively contribute to fraud detection. Fourth, workload is hypothesized to have a negative impact due to its potential to impair auditor focus and judgment. Collectively, these hypotheses aim to provide a more holistic understanding of the determinants of auditor management in fraud detection, particularly in the context of the education sector.

RESEARCH METHODS

This research includes a type of hypothesis testing using a causal design that aims to test the cause-and-effect relationship between the independent and dependent variables (Sugiyono, 2022). The approach used is associative quantitative to examine the effect of audit delay, audit fee, whistleblowing system, and workload on the auditor's ability to detect fraud.

The data used is primary data collected through the distribution of closed questionnaires with a Likert scale of 1-4. The population of this study were auditors who worked at public accounting firms (KAP) in Surabaya City which were listed in the IAPI Directory in 2024, with a total of 109 auditors from 55 KAP. The sampling technique was carried out by purposive sampling with the criteria that auditors have worked for at least one year. Data collection was carried out from March to April 2025. The data were analyzed using the Structural Equation Modeling-Partial Least Squares (SEM-PLS) technique through the help of SmartPLS software version 4.00. The analysis stages include validity and reliability tests through the measurement of outer loading, Average Variance Extracted (AVE), and Cronbach's Alpha; then proceed with the evaluation of the structural model using the R^2 value, path coefficient, and p-value; and hypothesis testing (Ghozali & Kusumadewi, 2023, p. 18). The results of this analysis are used to draw conclusions about the effect of each variable on the auditor's ability to detect fraud.

RESULTS AND DISCUSSION
Results
1. **Statistik Deskriptif**
    This test provides an explanation of the respondents' responses from each variable and the average value for each of the following variables:
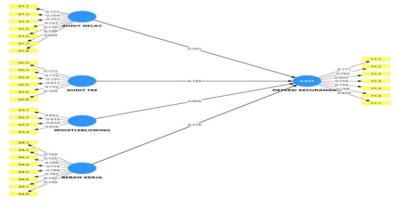
Table 1.
Variable Statistics

Indicator	Respondent's Response				Mean
	STS	TS	S	SS	
Auditor's Ability to Detect Fraud	20	18	295	360	3,43
Audit *Delay*	24	23	375	370	3,37
Audit *Fee*	40	48	362	342	3,21
Whistleblowing System	11	14	175	196	3,40
Workload	28	14	351	399	3,41

2. **Validity and Reliability Tests**
    The figure below is a structural research model developed to test the influence of audit delay, audit fee, whistleblowing system, and workload on auditors' ability to detect fraud, with a Structural Equation Modeling - Partial Least Squares (SEM-PLS) analysis approach.

Picture 1. 1.
Model Sem-PLS

The validity test aims to measure the validity or not of a questionnaire distributed to respondents, while the reliability test aims to measure a questionnaire that is an indicator of a variable or construct. A questionnaire is considered reliable if Cronbach's alpha value is greater than 0.6. The following are the results of the validity and reliability test:

Table 2.
Validity and Reliability Tests

Variabel	Code	Validity Test	Reliability Test	
		Loading Factor	Composite Reliability	Cronbach's Alpha
Auditor's Ability to Detect Fraud	Y.1	0,771 (Valid)	0,918 (Reliabel)	0,895 (Reliabel)
	Y.2	0,792 (Valid)		
	Y.3	0,803 (Valid)		
	Y.4	0,755 (Valid)		
	Y.5	0,738 (Valid)		
	Y.6	0,788 (Valid)		
	Y.7	0,835 (Valid)		
Audit *Delay*	X1.1	0,781 (Valid)	0,920 (Reliabel)	0,900 (Reliabel)
	X1.2	0,723 (Valid)		
	X1.3	0,764 (Valid)		
	X1.4	0,761 (Valid)		
	X1.5	0,737 (Valid)		
	X1.6	0,770 (Valid)		
	X1.7	0,798 (Valid)		
	X1.8	0,804 (Valid)		
Audit *Fee*	X2.2	0,723 (Valid)	0,896 (Reliabel)	0,861 (Reliabel)
	X2.3	0,776 (Valid)		
	X2.4	0,791 (Valid)		
	X2.5	0,812 (Valid)		
	X2.6	0,735 (Valid)		
	X2.8	0,769 (Valid)		
Whistleblowing System	X3.1	0,822 (Valid)	0,897 (Reliabel)	0,846 (Reliabel)
	X3.2	0,818 (Valid)		
	X3.3	0,834 (Valid)		
	X3.4	0,836 (Valid)		
Workload	X4.1	0,760 (Valid)	0,918 (Reliabel)	0,897 (Reliabel)
	X4.2	0,705 (Valid)		
	X4.3	0,795 (Valid)		
	X4.4	0,776 (Valid)		
	X4.5	0,788 (Valid)		
	X4.6	0,783(Valid)		
	X4.7	0,745 (Valid)		
	X4.8	0,749 (Valid)		

Source: Data processed, 2025.

The table above shows the results of all indicators that have qualified for the validity and reliability test. It has a Cronbach's alpha value of more than 0.7 and a composite reliability value of more than 0.6, and an outer loading value that is more than 0.5.

3. **R-Square Value**

Table 3.
R-Square Value

Variabel	R-square	R-square adjusted
Auditor's Ability to Detect Fraud (Y)	0,833	0,826

Source: Data processed, 2025.

The table above shows that the R-Square value is 0.833 and the R-Square adjusted is 0.826. This value means that the dependent variable has an influence of 83% on the independent variable, while the remaining 17% is influenced by other variables.

4. **Hypothesis Test**

This section explains the results of the analysis conducted to provide an understanding of how to achieve the objectives of this research. The relevant hypotheses will be described in detail, as follows:

Table 4.
Hypothesis Test

Hipotesis	F-Square	Path Coeficients	Original Sample	P-Values	Conclusion
X1 ->	0,176	0,391	0,391	0,000	Hipotesis ditolak
X2 ->	0,043	0,19	0,190	0,041	Hipotesis diterima
X3 ->	0	0,005	0,005	0,955	Hipotesis ditolak
X4 ->	0,166	0,376	0,376	0,000	Hipotesis ditolak

Source: Data processed, 2025.

Discussion
1. **The Effect of Audit Delay on Auditors' Ability to Detect Fraud**

Based on the test results, the delay audit was proven to have a positive and significant effect with a P-value of 0.000. These results show that audit delays are not solely caused by inefficiencies, but may reflect a more in-depth and careful audit process by auditors. These findings contradict the initial assumption that audit delays can reduce auditor effectiveness, so these results are in line with the research (Wirawan & Prasetyo, 2021) which states that audit delays have a significant positive effect on audit quality in fraud detection.

2. **The Effect of Audit Fees on Auditors' Ability to Detect Fraud**

These results show that the audt fee variable has a positive effect on the auditor's ability to detect fraud with a p-value of 0.041. The results of this study are in line with the research (Tjan et al.2024; Virgiantino & Widiyati, 2023) and (Arief et al. 2024) which states that

audit fees have a positive effect on the auditor's ability to detect fraud. Auditors who receive higher rewards tend to have greater motivation to show good quality work, including in exposing cheating.

3. **The Influence of the Whistleblowing System on the Auditor's Ability to Detect Fraud**

The results of this study do not show that the whistleblowing system has a P-value of 0.955 or >0.05 which means that the hypothesis is rejected or does not have a significant influence. These findings are in line with research (Astrawan & Achmad, 2023) and (Tambun & Darmawati, 2023) which indicates that even though the whistleblowing system has been implemented, it is not necessarily optimally utilized by the auditor in the audit process.

4. **The Effect of Workload on Auditors' Ability to Detect Fraud**

The results of the study showed that the workload had a p-value of 0.000 or <0.05 which means that the workload had a significant positive effect on the auditor's ability to detect fraud. These findings contradict the initial assumption that high workloads can lower optimal performance. The results of this study are in line with the research (Arnanda et al. 2022), which states that high workloads tend to have more experience and flight hours, which makes them more sensitive and meticulous in detecting fraud.

CONCLUSIONS

Based on the results of the analysis, this study concludes that audit delay, audit fees, and workload have a significant positive effect on the auditor's ability to detect fraud. This finding indicates that longer audit duration, adequate compensation, and high workload can encourage auditors to work more carefully and professionally in examining financial statements. On the other hand, the whistleblowing system variable does not show a significant effect, which indicates that this mechanism has not been optimally utilized by auditors as a supporting tool in the fraud detection process. Overall, the four variables were able to explain 83% of the variability in the auditor's ability to detect fraud.

Theoretically, this study contributes to strengthening the use of attribution theory to understand how auditors respond to internal and external pressures during the audit process. Practically, these findings provide direction for public accounting firms and companies to pay more attention to workload management, provide proportional audit fees, and improve the effectiveness of the whistleblowing system so that it can function optimally. Thus, the results of this study not only enrich the literature on fraud detection by auditors but also provide concrete recommendations in strengthening audit practices in the field.

Although it makes an important contribution, this study has several limitations that need to be considered. First, the questionnaire distribution process faced obstacles because several Public Accounting Firms refused to participate, limiting the number of respondents. Second, time constraints caused the scope of the study to only cover KAP in the Surabaya City area. Third, there are several indicators in validity and reliability testing that do not meet the criteria, possibly due to inconsistencies in answers or respondents' lack of understanding of the statements in the questionnaire. For future research, it is recommended that moderating

variables such as work experience or professional ethics be considered, as well as expanding the coverage area to obtain more general and representative results.

ACKNOWLEDGEMENTS

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