The Role of Internal Audit, Control Policies, and Staff Training in Reducing Fraud Frequency: A Quantitative Approach

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ABSTRACT

This study explores the relationship between quality internal supervision and frequency of financial statement fraud and its impact on the integrity of financial reports, using a case study of PDAM in East Java. Using a quantitative approach, the research analyzes data from PDAMs in the region to assess how effective internal supervision can influence the frequency of financial statement fraud. Internal supervision is measured through indicators such as the frequency of internal audits, control policies and staff training, while fraud frequency is assessed based on audit reports and fraud complaints. Partial Least Squares is used to analyze the relationships among latent variables with two stages: the Measurement and the Structural Model and hypothesis testing using bootstrapping to evaluate the significance of relationships with path coefficients. The findings show that while control measures and staff training levels have no discernible impact on fraud frequency, the frequency of internal audits has a considerable impact. These results highlight how crucial efficient internal oversight is to be lowering financial statement fraud and improving the quality of financial reports at PDAM in East Java.

Keywords: Internal Supervision, Financial Statement Fraud, Control Effectiveness

A. INTRODUCTION

Financial fraud is a significant issue that can undermine the credibility and integrity of an organization, including Regional Water Supply Companies (PDAM) in East Java. A recent corruption case involving the former Head of Finance and Accounting at PDAM in Murung Raya Regency, as reported by Harian Kalteng Post (2021), highlights the serious impact of financial fraud. Suspect M allegedly caused state losses of IDR 159 million through budget misappropriation, including unauthorized payments and unaccountable cash withdrawals. This case illustrates fundamental weaknesses in the internal supervision system of PDAM, which can lead to substantial financial losses and diminish public trust in the organization's transparency and accountability.

A crucial element in the detection and prevention of fraud is internal supervision. An effective internal supervision system should include several essential elements, such as the

frequency of internal audits, strict control policies, and ongoing staff training. Routine internal audits aim to identify and address potential risks before they escalate into major problems. Clear control policies help ensure that all financial activities are conducted in accordance with applicable regulations. Meanwhile, staff training aims to enhance awareness of the importance of compliance with control procedures.

At PDAM in East Java, despite various supervisory efforts being implemented, the frequency of fraud in financial reports remains a significant issue. This problem may stem from a lack of resources, inconsistent policies, or weaknesses in the internal control system. Therefore, it is crucial to evaluate how the quality of internal supervision influences the frequency of fraud.

This study aims to explore and analyze the relationship between the quality of internal supervision and the frequency of fraud in financial reports at PDAM in East Java. Using a quantitative approach, this research will assess internal supervision indicators such as the frequency of internal audits, control policies, and staff training, and their impact on the frequency of fraud. This research is expected to provide valuable insights into how to improve the internal supervision system to reduce fraud and enhance the integrity of financial reports. The findings from this study will contribute to the academic literature and provide practical recommendations for strengthening control systems in PDAM and similar organizations to maintain public trust and ensure the accuracy of financial reports.

B. LITERATURE REVIEW

Internal Supervision

The theory of internal supervision focuses on systems and procedures designed to ensure the integrity of financial reports, compliance with regulations, and operational efficiency. According to the Committee of Sponsoring Organizations of the Treadway Commission (2013), internal supervision encompasses five main components: the control environment, risk assessment, control activities, information and communication, and monitoring. The control environment provides a foundation for the other components and includes ethical culture and managerial responsibility. Risk assessment involves identifying and evaluating risks that may affect the achievement of objectives. Control activities include policies and procedures that help mitigate risks. Information and communication ensure that relevant information is

effectively collected and conveyed. Monitoring involves the continuous evaluation of the effectiveness of internal controls.

Pentagon Theory

Sahla and Ardiyanto (2013) proposed the Pentagon Theory as a model designed to provide a more comprehensive understanding of the causes of fraud in financial reports. This model is an extension of the Fraud Triangle, which is known for three key elements: pressure, opportunity, and rationalization. The Pentagon Theory adds two additional elements considered important in analyzing financial fraud: "integrity" and "system complexity." Thus, this model not only focuses on individual motivations and existing opportunities but also considers systemic and ethical factors that may influence fraudulent behavior. Integrity encompasses the moral and ethical values of individuals and organizations, while system complexity refers to how structures and procedures within an organization may create gaps or opportunities for fraud to occur. This approach aims to provide a more holistic picture of how various elements interact and contribute to financial fraud. Therefore, the Pentagon Theory identifies five main factors contributing to financial fraud:

Motivation: This is the driving factor behind a person's decision to commit fraud. It can include financial pressure, the need to meet unrealistic targets or expectations, or other personal impulses. Motivation often results from situations that push individuals to see fraud as a solution.

Opportunity: This relates to the conditions under which individuals feel they can commit fraud without being detected. This factor includes weaknesses in the internal supervision system, inadequate controls, or deficiencies in control procedures. Opportunities increase when supervision is insufficient or ineffective.

Rationalization: This is the psychological process by which individuals justify their actions to themselves. It may involve the belief that their actions do not harm others, or they feel entitled to the benefits of the fraud. Rationalization helps individuals overcome guilt or moral conflict related to their fraudulent actions.

Tendency to Commit Fraud: This includes the traits or characteristics of individuals who may be more vulnerable to engaging in fraudulent behavior. This encompasses attitudes, personality, and background that might influence their decisions to engage in fraudulent acts. For example, someone with a background of bad habits or unethical behavior may be more inclined to commit fraud.

Quality of Internal Supervision: This refers to the effectiveness of the internal control system and procedures in place within an organization. It involves how well supervision is conducted, the frequency of internal audits, and the policies and procedures implemented to prevent and detect fraud. Effective supervision can reduce the opportunities and motivations for fraud.

Application of Pentagon Theory in Research

In the context of financial fraud research, the Pentagon Theory can be used to analyze various factors contributing to fraud within an organization. By examining each element of this theory, researchers can identify potential risk areas and weaknesses in internal supervision that may influence the frequency and impact of fraud (Novita, 2021). For instance, studies focusing on the quality of internal supervision can evaluate how internal control systems can be improved to reduce opportunities and motivations for fraud.

Financial Fraud

Financial fraud refers to the manipulation or misrepresentation of financial information by individuals or groups to gain personal or organizational benefits (Bonner, 1990). Financial fraud includes actions that deviate from Generally Accepted Accounting Principles (GAAP) or other financial reporting standards to deceive the readers of financial statements. Types of financial fraud include revenue manipulation, which is carried out by recognizing revenue earlier than appropriate or inflating revenue figures to present a better financial performance than actual. Additionally, asset misappropriation occurs when individuals divert or use company assets for personal gain without legitimate authorization. Fraud can also involve the misrepresentation of liabilities, where obligations or debts are inaccurately reduced to improve financial ratios and provide a more favorable view of a company's financial health (Norazida Mohamed, 2021).

Quality of Internal Supervision and Frequency of Fraud in Financial Reports

According to Kravis and Weitzman (2016), strong internal supervision serves as a primary deterrent to fraud by identifying and addressing potential risks early on. Internal supervision that includes routine audits, clear control policies, and staff training can reduce the likelihood of fraud occurring, as effective controls can limit opportunities for individuals to engage in fraudulent behavior. Meanwhile, Macey and O'Hara (2003) emphasize that a well-structured internal supervision can reduce the risk of financial fraud by strengthening internal controls and audit systems. This structure includes careful oversight of financial reporting

processes and the implementation of control policies that can enhance the quality of financial reports. Based on existing theory and research, it can be concluded that the quality of internal supervision significantly influences the frequency of fraud in financial reports. An effective internal supervision system can reduce the opportunities for fraud by providing strict controls and effective procedures for detecting and preventing fraud, as well as enhancing the transparency and accountability of financial reports.

Hypotheses

This research involves variables such as the frequency of internal audits, control policies, staff training levels, and the frequency of fraud:

1. The frequency of internal audits negatively influences the frequency of fraud.

Research by Albrecht et al. (2012) shows that more frequent internal audits can reduce the opportunities for fraud. They reveal that effective internal audits serve as barriers and early detection mechanisms that can lower the incidence of fraud. Other research by Beasley et al. (2000) found that companies with more frequent internal audits significantly experience a decrease in financial fraud. This is because internal audits are capable of detecting potential risks earlier.

2. Effective control policies negatively influence the frequency of fraud.

Research by COSO (2013) reinforces that strong and effectively implemented internal controls can reduce incidents of fraud. The implementation of systematic and continuous policies creates an environment where fraud is more difficult to commit. Research by Johl et al. (2013) also supports that good control policies can prevent potential fraud since strict control procedures make it difficult for perpetrators to abuse the system.

3. Staff training levels related to control policies negatively influence the frequency of fraud.

Kusuma & Nazaruddin (2017) found that better staff training in internal control policies can reduce fraud incidents because staff become more aware of risks and their responsibilities in reporting or preventing fraud. Research by ACFE (2018) also shows that companies that provide regular training to staff on internal controls experience a reduction in the number of fraud cases, as staff are better prepared to detect and respond to potential fraud.

C. RESEARCH METHOD

Research method should include description of population, sampling method, data measurement and data collection. Furthermore, the prosedure and tool used to test the hypothesis should also be explained in this section. (Use styles: ICEMA - Content)

This study employs a quantitative approach, aimed at testing the relationships between variables through statistically measurable data. The quantitative research allows for the testing of formulated hypotheses and analysis of numerical data. This research utilizes an explanatory survey method. This method is used to explain the causal relationships between independent variables (audit frequency, control policies, staff training) and the dependent variable (fraud frequency). Data are collected using a structured questionnaire to gather information from respondents regarding the indicators of the research variables.

Data Collection and Sample

The data for this research were obtained from 18 Regional Drinking Water Companies (PDAM) in East Java. The data collection process involved several methods, including surveys of related staff (Finance and Accounting Departments, with 3 staff each) (Hair, 2017; Sekaran, 2016; Bryman, 2015; Coram, 2008; Soh, 2011; Dellaportas, 2005; Gramling, 2004; Wells, 2011), analysis of existing audit reports, and in-depth reviews of internal company documents. The collected data include indicators of internal oversight such as the frequency of internal audits, the control policies implemented, and the staff training provided. Additionally, information regarding fraud frequency was obtained from audit reports and recorded fraud complaints at each PDAM. The research sample was selected using purposive sampling criteria, with the following considerations:

4. PDAMs that have complete data on audits, control policies, staff training and fraud reports.
5. PDAMs that show compliance or non-compliance with control standards.
6. PDAMs that are willing to provide the necessary information for the research.

Operational Variables

In this study, the research variables are divided into two main categories: independent variables and dependent variables. The independent variables consist of the quality of internal oversight, measured through three main indicators: audit frequency, control policies, and staff training level. The dependent variable in this research is fraud frequency, measured based on the frequency of detected fraud and the number of fraud complaints.

1. Audit Frequency is measured using a Likert scale, assessing how often internal audits are conducted in a year. This scale ranges from "very rarely" to "very frequently," focusing on the frequency of audits conducted per year. According to Sekaran and Bougie (2016), the Likert scale is an effective tool for measuring perceptions and event frequencies, making it suitable for assessing this variable. Research by Cooper and Schindler (2014) also supports the use of the Likert scale to measure frequency variables in surveys.
2. Control Policies are measured with a Likert scale that evaluates the effectiveness and implementation of the control policies in the company. Respondents are asked to assess the effectiveness of the policies in managing fraud risks and the extent to which these policies are implemented. This method aligns with the guidelines from Bryman and Bell (2015), which emphasize the importance of assessing policy effectiveness and implementation through the Likert scale to obtain a comprehensive picture of existing policies.
3. Staff Training Level related to Control Policies is also measured with a Likert scale, which includes the frequency and effectiveness of the training provided to staff. The assessment includes the number of training sessions attended, as well as the relevance and effectiveness of the training materials in enhancing understanding and implementation of control policies. This is consistent with Hair et al. (2017), who recommend using the Likert scale to measure training variables and effectiveness in the context of business and control.
4. Fraud Frequency is measured using quantitative data, including the number of frauds detected based on audit reports and the number of fraud complaints received. This data provides an overview of the incidence rate of fraud within the company. Albrecht et al. (2012) suggest using quantitative data to measure fraud frequency, as it provides objective and measurable information regarding fraud occurrences.

Data Analysis Techniques

Obtained data will be analyzed using structured statistical methods to ensure the accuracy and relevance. Descriptive statistics will be used to describe the respondent profile and the characteristics of the research variables, including frequency distributions, means, and standard deviations. This step provides an overview of the collected data and helps understand the basic patterns. Furthermore, validity and reliability tests will be conducted to ensure that the research instrument, namely the questionnaire, is valid and reliable. Validity testing will be carried out through Exploratory Factor Analysis (EFA) or Confirmatory Factor Analysis (CFA), allowing the researcher to verify that the questionnaire accurately measures the intended constructs.

Reliability will be tested using Cronbach's Alpha and Composite Reliability (CR), with values above 0.70 considered acceptable to ensure internal consistency (Sekaran & Bougie, 2016). For the analysis of relationships between variables, Partial Least Squares (PLS) will be used, especially since this model involves numerous latent variables and indicators. PLS consists of two main stages: the Structural Model (Inner Model), which examines the connections between latent variables and hypotheses, and the Measurement Model (Outer Model), which evaluates the validity and reliability of indicators. Hypothesis testing will be conducted using bootstrapping techniques on PLS to evaluate the significance of relationships between variables, with path coefficients and t-statistics values, along with p-values as indicators of significance (Hair et al., 2017; Bryman & Bell, 2015).

D. RESULTS AND DISCUSSION

Design of the Inner and Outer Model

This model design illustrates how the latent variables relate to the hypotheses, problem formulation, and theoretical studies. Figure 1 represents the inner model design processed using SmartPLS 4.0, where Frequency of Internal Audit is denoted as IA, Control Policy as CP, Staff Training as ST, and Fraud Frequency as FF. Below is the inner model design in this study. Figure 2 shows each variable in this study, namely Frequency of Internal Audit, Control Policies, Staff Training, and Fraud Frequency, each measured with five indicators, as described in the following design of outer model.

PLS Model Scheme (Partial Least Squares)

Hypothesis testing in this study uses Partial Least Squares (PLS) analysis techniques with SmartPLS 4.0 that will be tested in this study can be shows in figure 3. The analysis of the PLS model is conducted in three stages:

1. Outer Model Analysis

To make sure the measurements are appropriate for measurement (valid and trustworthy), outer model analysis is carried out. Several indices, such as Cronbach Alpha, Composite Reliability, Discriminant Validity, and Convergent Validity, show the presence of outer model analysis.

2. Inner Model Analysis

To make sure the built structural model is reliable and accurate, inner model analysis and structural model analysis are carried out. A number of indices, such as Coefficient

Determination (R-Square), Predictive Relevance (Q-Square), and Goodness of Fit Index (GoF), can be used to evaluate the inner model.

3. Hypothesis Testing

Hypothesis testing is accomplished by assessing the probability value and the t-statistic. At a significance level of 5%, the p-value for the probability value needs to be less than 0.05. 1.96 is the t-table value with a 5% alpha. Therefore, when the t-statistic > t-table, the hypothesis is accepted.

Evaluation of Outer Model

Convergent Validity

In testing for convergent validity, the outer loading factor value is used in this study. An indicator can be stated to meet the convergent validity category if the outer loading value is greater than 0.7. Tabel 1 shows the outer loading values for each indicator in this study's variables. Based on the data presented in Table 1, it can be observed that all variable indicators in this study have outer loading values of less than 0.7, thus meeting the requirements for convergent validity. Therefore, it can be concluded that all these indicators are valid.

Discriminant Validity

The findings of the discriminant validity test are presented in this section. Cross-loading values are used to test discriminant validity. If an indicator's cross-loading value on a given variable is higher than its cross-loading value on other variables, it is deemed to have discriminant validity. Based on Table 2, it can be seen that each indicator in the research variables has the highest cross-loading value on its respective variable compared to the cross-loading values of other variables. This result indicates that the indicators used in this study have good discriminant validity in structuring the variables.

In addition, to evaluate the discriminant validity, we also use the Average Variance Extracted (AVE) method. Discriminant validity is considered good if the AVE value of each indicator is more than 0.5. Tabel 3 shows the AVE values obtained in this study. Based on the data presented in Table 3, it can be concluded that the Average Variance Extracted (AVE) value for all variables in this study is more than 0.5. Therefore, it can be stated that each variable has good discriminant validity.

Composite Reliability

The validity of the indicators used in this study has been established by the earlier tests; the next stage is to establish the variables' reliability. One metric for evaluating the

dependability of the indicators for a variable is Composite Reliability. If a variable's composite reliability value is more than 0.6, it can be deemed to satisfy the composite reliability requirement. Tabel 4 is the result of composite reliability values for each variable used in this study. It is evident from the data in Table 4 that every variable in this study has a composite reliability value greater than 0.6. We can conclude that all variables have a satisfactory level of reliability because this result shows that every variable satisfies the composite reliability criterion.

Cronbach's Alpha

Cronbach's Alpha values can be used to support the reliability test that was previously carried out utilizing composite reliability. If a variable's Cronbach's Alpha value is greater than 0.7, it is deemed dependable or meets the requirement. The Cronbach's Alpha values for each variable in this study are displayed in Table 5. Based on the data presented in Table 5, it can be seen that all variables have a Cronbach's Alpha value is more than 0.7. Thus, this result indicates that each variable in the study has met the Cronbach's Alpha requirements, allowing us to conclude that all variables possess a good level of reliability.

Inner Model Evaluation

The evaluation of the path coefficient aims to show how strong the influence of the independent variables is on the dependent variable. The evaluation of the path coefficient is conducted using the coefficient of determination (R-Square), which is used to measure how much the endogenous variable is influenced by other variables. Based on the data processing conducted using SmartPLS 4.0, the obtained R-Square value is 0.265. According to Chin (2010), an R^2 result of between 0.19 to 0.33 is considered to be in the weak category. This value explains that only the independent variables in this study, which include the frequency of internal audits, control policies, and staff training, are able to explain the frequency of fraud by 26.5 percent.

In hypothesis testing using Smart PLS software, bootstrapping is first conducted. The findings from the bootstrapping process will offer insights into the theories put forth in this investigation. In this study, T-Statistics and P-Values are examined as part of the hypothesis testing process. According to the five percent significance level (alpha) utilized in this study, the research hypothesis will be accepted if the T-Statistics value is greater than 1.96 or the P-Values are less than level significant 0.05. Figure 4 displays the bootstrapping results for the PLS model used in this investigation.

The direct relationship between the dependent and independent variables will be examined in this study. The values of the route coefficient can be used to determine the direct influence. The path coefficient findings from the PLS 4.0 data processing are shown below. We'll test the dependent variable's direct impact on the independent variable. The values of the route coefficient can be used to determine the direct influence. Table 6 displays the path coefficient results that were acquired through the use of PLS 4.0 for data processing.

Based on the table 6 it can be concluded that the three hypotheses proposed, two hypotheses were rejected, namely H2 and H3, while only H1 was accepted. In this hypothesis testing, a significance level of 5% was used. Therefore, hypothesis testing in this study can be concluded:

1. H1: Frequency of Internal Audit has an effect on Fraud Frequency Table 6 shows that the T-Statistics value is 2.441 and the P-Value is 0.015, which means that (T-Statistics) 2.441 > 1.96 (T-Table) and (P-Value) 0.015 < 0.05 (α). Consequently, it may be said that H1 is approved, showing that the frequency of internal audits significantly influences the frequency of fraud.
2. H2: Control Policies have an effect on Fraud Frequency Table 6 shows that the T-Statistics value is 0.393 and the P-Value is 0.694, which means that (T-Statistics) 0.393 < 1.96 (T-Table) and (P-Value) 0.694 > 0.05 (α). Consequently, it may be said that H2 is rejected, showing that control policies do not have significantly affect the frequency of fraud.
3. H3: Staff Training has an effect on Fraud Frequency Table 6 shows that the T-Statistics value is 0.548 and the P-Value is 0.548, which means that (T-Statistics) 0.548 < 1.96 (T-Table) and (P-Value) 0.548 > 0.05 (α). Consequently, it may be said that H2 is rejected, showing that staff training not have significantly affect the frequency of fraud.

Frequency of Internal Audit Affects Fraud Frequency (H1)

According to the study's hypothesis testing results, there is a substantial correlation between the frequency of fraud and the frequency of internal audits. After utilizing the Smart PLS program for analysis, the T-Statistics value was found to be 2.441, surpassing the 1.96 criterion, while the P-Value was found to be 0.015, below the 0.05 threshold. This indicates that hypothesis H1 is accepted, and frequency of internal audits significantly reduces the occurrence of fraud within the organization.

These findings align with various previous studies that also indicate that internal audits play a crucial role in reducing fraud incidents. Albrecht et al. (2012) stated in their research

that internal audits conducted more frequently can reduce the likelihood of fraud occurring, as audits serve as a deterrent and early detection mechanism. Internal auditors who routinely examine a company's financial and operational processes can more quickly identify potential deviations or indications of fraud, allowing the company to take appropriate preventive actions promptly. Additionally, research by Beasley et al. (2000) found that companies that regularly conduct internal audits, especially with a higher frequency, experience a significant reduction in cases of fraud, particularly financial statement fraud. This is because effective internal audits can identify higher-risk areas and recommend corrective actions before fraud escalates further.

Thus, a higher frequency of internal audits creates a tighter control mechanism and sends a strong signal to employees that all their activities are being monitored regularly. This indirectly serves as a deterrent for those who may intend to commit fraud. In conclusion, increasing the frequency of internal audits proves to be one of the effective strategies for reducing the risk of fraud within a company.

Control Policies Do Not Significantly Affect Fraud Frequency (H2)

In contrast to the first hypothesis, the second hypothesis (H2) regarding the impact of control policies on fraud frequency in this study shown that was rejected. The analysis results showed a T-Statistics value obtained 0.393, which is less than 1.96, and P-Value of 0.694, which is greater than 0.05, indicating that the control policies implemented in the organization do not significantly influence the reduction of fraud frequency.

This finding contradicts previous research, such as that presented by COSO (2013) and Johl et al. (2013), which stated that effective internal control policies can reduce the risk of fraud. These studies highlighted the importance of implementing sound control policies, including strict procedures and protocols, to create a strong control environment where fraud is more difficult to commit. However, in this study, the rejection of hypothesis H2 may be attributed to several factors. One possibility is that the existing control policies were not effectively implemented. Policies may have been formally established, but if they are not correctly implemented or not thoroughly understood by all staff, their effectiveness in preventing fraud diminishes. Additionally, control policies that are not updated or adjusted to evolving risk dynamics may lead to weaknesses in the control system, resulting in continued fraud despite the existence of formal policies.

Another factor that may influence this is the lack of supervision or monitoring of the implementation of these control policies. If control policies only exist on paper without

adequate follow-up, the control system will become weak and not function optimally. In this situation, businesses must make sure that, in addition to being well-designed, control procedures are consistently used and regularly reviewed in order to effectively prevent fraud.

Staff Training Level Does Not Significantly Affect Fraud Frequency (H3)

The third hypothesis (H3), which examined the effect of staff training levels related to control policies on fraud frequency, was also rejected in this study. The analysis results showed a T-Statistics value of 0.548, which is less than 1.96, and a P-Value of 0.548, which is greater than 0.05. This indicates that staff training related to control policies does not have a significant effect on fraud frequency in the company studied.

Rejection of this hypothesis contradicts findings from Kusuma & Nazaruddin (2017) and ACFE (2018), which suggest that adequate staff training can reduce fraud frequency. Good training should enhance employee awareness of fraud risks and strengthen their responsibility in detecting and reporting fraudulent activities. However, the rejection of H3 in this study may be due to several factors. One of them is the quality or relevance of the training provided. Training that is poorly designed or irrelevant to the daily tasks of staff related to fraud prevention may not have a significant impact. If the training is general and not specific to critical aspects of control policies and fraud prevention, staff may not gain sufficient knowledge or skills to detect or address potential fraud.

Moreover, the training conducted may have been merely a formality without serious follow-up. Without proper oversight or a system to evaluate the effectiveness of the training, these training efforts may lose their impact in the long term. Trained staff may not apply the knowledge they have acquired if there is no encouragement or incentive to do so. Therefore, even if training has been provided, its impact on reducing fraud frequency becomes minimal if not supported by a strong and sustainable control system.

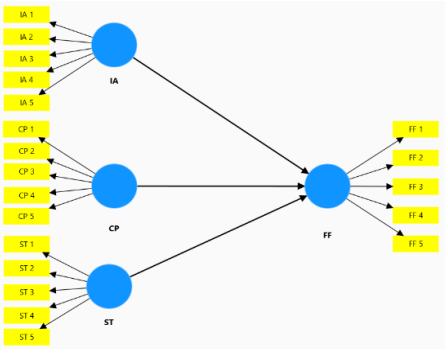

Figure 1. Inner Model Design

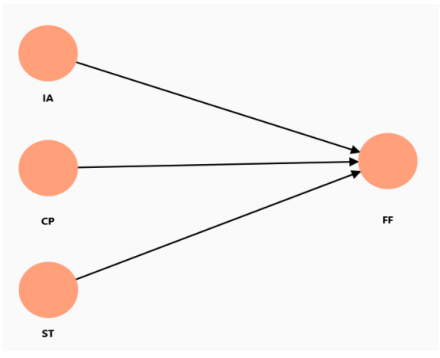

Figure 2. Outer Model Design

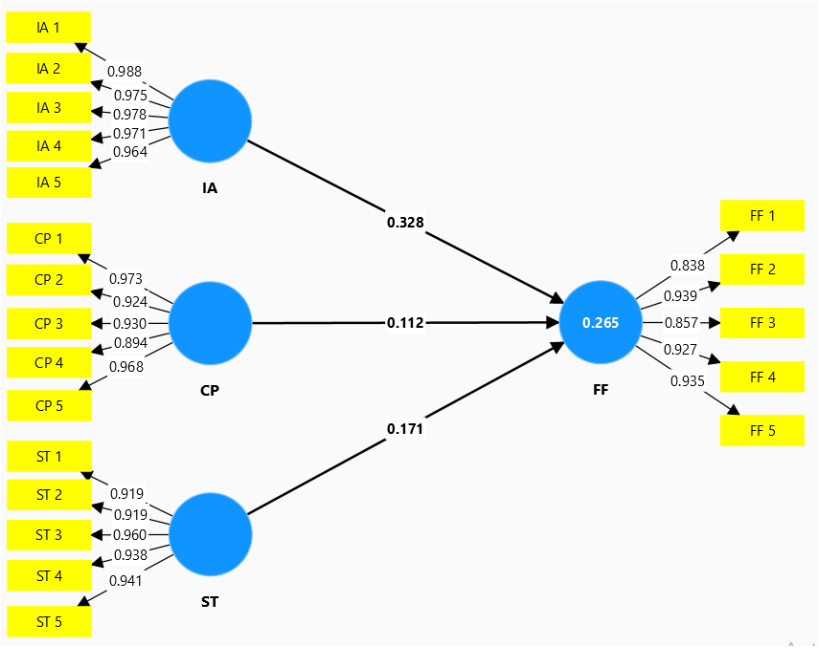

Figure 3. Initial PLS Model Scheme

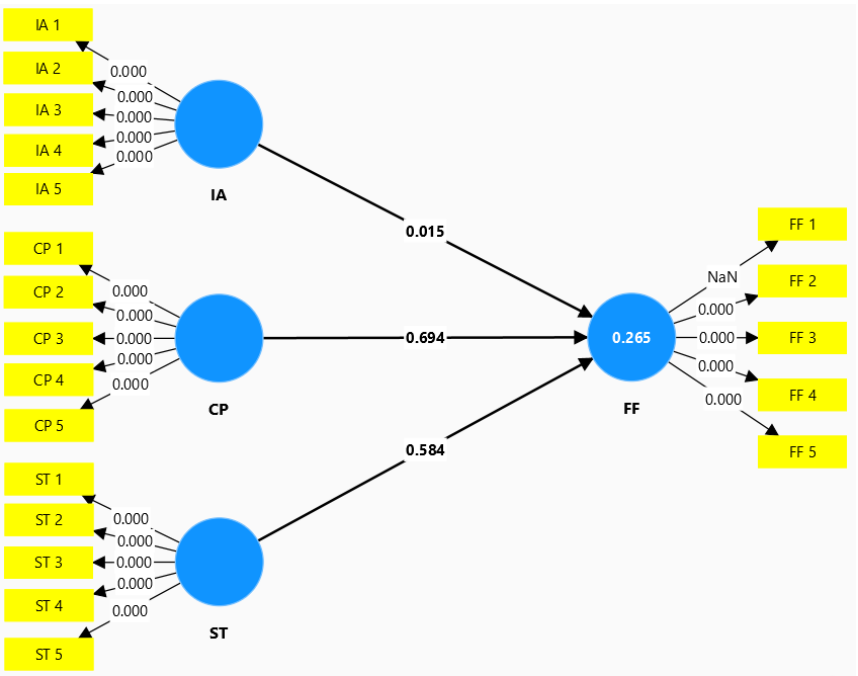

Figure 4. Boostrapping PLS Model Scheme

Table 1. PLS Outer Loading Analysis

Variabel	Indikator	*Outer Loading*
X_1: *Frequency of Internal Audit* (IA)	IA 1	0.973
	IA 2	0.924
	IA 3	0.930
	IA 4	0.894
	IA 5	0.968
X_2: *Control Policies* (CP)	CP 1	0.838
	CP 2	0.939
	CP 3	0.857
	CP 4	0.927
	CP 5	0.935
X_3: *Straff Training* (ST)	ST 1	0.988
	ST 2	0.975
	ST 3	0.978
	ST 4	0.971
	ST 5	0.964
Y: *Fraud Frequency* (FF)	FF 1	0.919
	FF 2	0.919
	FF 3	0.960
	FF 4	0.938
	FF 5	0.941

Sources: Data Processing Results SmartPLS 4, 2024

Table 2. PLS Cross Loading Analysis

	CP	FF	IA	ST
CP 1	0.973	0.374	0.357	0.919
CP 2	0.924	0.313	0.359	0.845
CP 3	0.930	0.326	0.262	0.763
CP 4	0.894	0.293	0.173	0.760
CP 5	0.968	0.365	0.205	0.844
FF 1	0.273	0.838	0.432	0.324
FF 2	0.354	0.939	0.413	0.434
FF 3	0.237	0.857	0.354	0.333
FF 4	0.380	0.927	0.455	0.475
FF 5	0.346	0.935	0.375	0.425
IA 1	0.302	0.480	0.988	0.566
IA 2	0.266	0.404	0.975	0.501
IA 3	0.240	0.415	0.978	0.475
IA 4	0.286	0.453	0.971	0.543
IA 5	0.318	0.450	0.964	0.540
ST 1	0.973	0.374	0.357	0.919
ST 2	0.973	0.374	0.357	0.919
ST 3	0.745	0.446	0.571	0.960
ST 4	0.717	0.441	0.626	0.938
ST 5	0.772	0.446	0.571	0.941

Table 3. Results of PLS Analysis of Average Variance Extracted (AVE)

Variabel	AVE
Frequency of Internal Audit (X_1)	0.880
Control Policies (X_2)	0.810
Staff Training (X_3)	0.951
Fraud Frequency (Y)	0.875

Sources: Data Processing Results SmartPLS 4, 2024

Table 4. Results of PLS Analysis of Composite Reliability

Variabel	*Composite Reliability*
Frequency of Internal Audit (X_1)	0.973
Control Policies (X_2)	0.949
Staff Training (X_3)	0.990
Fraud Frequency (Y)	0.969

Sources: Data Processing Results SmartPLS 4, 2024

Table 5. Results of PLS Analysis of Cronbach's Alpha

Variabel	*Cronbach Alpha*
Frequency of Internal Audit (X_1)	0.966
Control Policies (X_2)	0.941
Staff Training (X_3)	0.987
Fraud Frequency (Y)	0.964

Sources: Data Processing Results SmartPLS 4, 2024

Table 6. Path Coefficient Results

Path coefficients - Mean, STDEV, T values, p values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
CP -> FF	0.112	0.125	0.284	0.393	0.694
IA -> FF	0.328	0.326	0.135	2.441	0.015
ST -> FF	0.171	0.161	0.313	0.548	0.584

Sources: Data Processing Results SmartPLS 4, 2024

E.**CONCLUSION**

Based on the outcome of this investigation, it can be inferred that the frequency of internal audits significantly influences the reduction of fraud frequency, consistent with prior literature indicating that more frequent internal audits can detect and prevent potential fraud. Nevertheless, in the context of this study, control rules and staff training levels had no discernible impact, indicating shortcomings in their execution. This emphasizes the importance for companies to not only have strong control policies and provide adequate training but also to ensure that both are properly implemented, monitored, and continuously evaluated to function optimally in preventing fraud. Companies need to strengthen their internal control systems by focusing more on consistent and effective implementation and improving the quality and relevance of staff training to create a fraud-resistant working environment.

Suggestions

Several suggestions can be implemented for future research. First, expanding the sample and varying respondents is highly recommended to make research results more representative and generalizable to different types of organizations. Second, the use of more in-depth and specific measurement instruments for each variable will enhance result accuracy. Additionally, it is advisable to extend the observation period to evaluate the long-term impact of internal audit frequency, control policies, and staff training on fraud reduction. Future research should also consider broader external factors, such as organizational culture and external regulations, to better understand the factors influencing fraud frequency.

Furthermore, using more comprehensive analysis methods, such as covariance-based SEM, could provide stronger results. Finally, a more objective measurement of fraud frequency, for instance through external audits, is essential to complement data from internal reports. With these recommendations, it is anticipated that future study will produce more reliable and practical findings for enhancing internal control frameworks and thwarting fraud in a range of businesses.

REFERENCES

COSO, C. o. (2013). *Internal Control Integrated Frame Work.* New York: AICPA.

American Institute of Certitified Public Accountants (AICPA). (2010). *Codification of statements on auditing standards.* New York: AICPA.

Bonner, S. &. (1990). Determinats of Auditor Expertise. *Journal Accounting Research (Suplement)*, 1-28.

Bryman, A. &. (2015). *Business Research Methods.* Oxford University Press.

Coram, P. F. (2008). Internal audit, alternative internal audit structures and the level of misappropriation of assets fraud. *Accounting & Finance, 48(4)*, 543-559 https://doi.org/10.1111/j.1467-629X.2007.00247.x.

Cressey, D. R. (1953). *Fraudulent Financial Behavior.* Glencoe: Free Press.

Daft, R. L. (2003). *Organizational Theory and Design.* Mexico: South-Western College Pub.

Dellaportas, S. G. (2005). *Ethics, Governance & Accountability: A Professional Perspective.* John Wiley & Sons.

Felencia, N. C. (2022). Pengawasan dalam Badan Pengawasan Keuangan dan Pembangunan (BPKP). *Law, Development & Justice Review, 5(2)*, 213-227.

Gramling, A. A. (2004). The role of the internal audit function in corporate governance: A synthesis of the extant internal auditing literature and directions for future research. *Journal of Accounting Literature, 23*, 194-244.

Hair, J. H. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM).* Sage Publications.

Harian Kalteng Pos. (2021). Kasus Korupsi di PDAM Mura DIsidangkan. *Harian Kalteng Pos*.

Harian Kumparan. (2021). Mantan Kasubag Keuangan dan Akuntansi PDAM Mura Ditangkap karena. *https://kumparan.com*.

Januarti, A. K. (2021). Lack of Financial Reporting Using Crowe's Fraud Pentagon Theory. *Jurnal Dinamika Akuntansi 13(2)*, 148-157.

Kravis, I. &. (2016). The Role of Internal Controls in Preventing Financial Fraud". Journal of Financial Crime. *Journal of Financial Crime, 23(1), 77-94*.

Macey, J. R. (2003). The Corporate Governance of Banks. *Economic Policy Review, 9(1), 91-107*.

Norazida Mohamed, N. B. (2021). The Influencing Factors of employee Fraud in Malysian Financial Institution: The Application of the Fraud Pentagon Theory . *Academy of Strategic Management Journal, 13 (6)*, 1-12.

Novita, R. F. (2021). Fraud Pentagon Theory for Detecting Financial Statement Fraudulent. *Jurnal Riset Akuntansi Kontemporer Volume 13, No. 1*, 20-25.

Sahla, W. a. (2023). Ethical values and auditors fraud tendency perception: testing of fraud pentagon theory. *Journal of Financial Crime, Vol. 30 No. 4*, 966-982. https://doi.org/10.1108/JFC-04-2022-0086.

Sekaran, U. &. (2016). *Research Methods for Business: A Skill Building Approach.* John Wiley & Sons.

Sekretaris Negara RI. (2001). *Undang-Undang Nomor 20 Tahun 2001 tentang Perubahan atas Undang-Undang Nomor 31 Tahun 1999 tentang Pemberantasan Tindak Pidana Korupsi.* Jakarta: Sekretaris Negara RI.

Soh, D. S.-B. (2011). The internal audit function: Perceptions of internal audit roles, effectiveness, and evaluation. *Managerial Auditing Journal, 26(7)*, 605-622. https://doi.org/10.1108/02686901111151332.

Tim Kominfo BPKP Pusat. (2023, Desember 13). *https://www.bpkp.go.id*. Retrieved from https://www.bpkp.go.id/berita/read/46213/0/BPKP-Terima-Penghargaan-Pemberantasan-Tindak-Pidana-Korupsi-Tahun-2023: https://www.bpkp.go.id/berita/read/46213/0/BPKP-Terima-Penghargaan-Pemberantasan-Tindak-Pidana-Korupsi-Tahun-2023

Wells, J. T. (2011). *Corporate Fraud Handbook: Prevention and Detection (4th ed.).* John Wiley & Sons.