

Research Article

The Effect of Forensic Accounting and Investigative Auditing on Fraud Prevention and Disclosure, with Internal Control System Effectiveness as a Moderating Variable

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ABSTRACT

This study aims to examine the effect of forensic accounting and investigative auditing on fraud prevention and detection, with the effectiveness of internal control systems as a moderating variable at the Financial and Development Supervisory Agency (BPKP) of Central Java Province. This study uses a quantitative approach. The population in this study consisted of BPKP auditors in Central Java Province, with a total of 60 respondents selected using purposive sampling. The data used in this study was primary data collected by distributing questionnaires. Data analysis used the Structural Equation Modeling (SEM) method through the Partial Least Square (PLS) and Moderated Regression Analysis (MRA) approaches with the SmartPLS Version 4 software application. The results showed that forensic accounting had no effect on fraud prevention and detection, while investigative auditing had a positive and significant effect. The effectiveness of internal control systems was unable to moderate the influence of forensic accounting and investigative auditing on fraud prevention and detection.

Keywords: Forensic Accounting; Investigative Auditing; Internal Control; System Effectiveness; Fraud Prevention; Detection

1. INTRODUCTION

The high incidence of fraud and corruption in Indonesia's public sector remains a serious concern for both the government and society. In 2024, Indonesia scored 37 out of 100 on the Corruption Perceptions Index, up from 34 the previous year, ranking 99th out of 180 countries and fifth in ASEAN, indicating persistent high levels of corruption. The Attorney General reported state losses from alleged corruption totaling approximately IDR 310.61 trillion, USD 7.88 million, and 58.135 kilograms of gold, highlighting the urgent need for prevention and detection efforts (Fauziah & Amalia, 2024). The Corruption Eradication Commission (KPK) emphasizes strengthened anti-corruption measures, while the Financial and Development Supervisory Agency (BPKP), as the government's internal oversight body, plays a crucial role in ensuring accountability, transparency, and proper financial governance across all levels of government by conducting audits, supervision, and providing corrective recommendations to prevent fraud and corruption in public sector projects (Ardiansyah, 2023).

In line with its mandate, BPKP's oversight of the Sheikh Mohammed bin Zayed (MBZ) elevated toll road project revealed state losses of IDR 510 billion due to reduced concrete quality and lower steel box girder volumes, key structural components. These technical manipulations compromised safety, restricting the road to light vehicles while barring heavy trucks (Kompas, 2025). The case underscores the need for strict supervision, fraud detection, and stronger internal controls to ensure project quality and public safety (Hair & Alamer, 2022). Effective fraud prevention requires coordination among oversight bodies, law enforcement, and stringent regulations. In Indonesia, fragmented anti-corruption efforts across KPK, Police, and Prosecutor's Office often hinder coordination, highlighting that beyond enforcement, systemic improvements in transparency and accountability at all government levels are essential to minimize corruption in both strategic and local projects (Sugiyono, 2016).

Central Java Province is notably vulnerable to village fund misappropriation and local government corruption. According to the Central Java High Prosecutor's Office, 30 cases of village fund misuse were recorded by April 2025, up from 29 cases in 2024, involving personal use of funds, inaccurate financial reporting, and document falsification (DetikJateng, 2025). The Corruption Eradication Commission (KPK) highlighted that several village heads faced legal action for fund abuse, indicating persistent challenges despite preventive measures (Dianto, 2023). In response, the provincial government,

through the Village Community Empowerment Agency, has promoted regulations on fund management and established public reporting channels, with some officials returning misused funds. Strengthening fraud prevention and detection in the public sector, particularly within the Central Java Financial and Development Supervisory Agency (BPKP), requires a solid understanding of key concepts such as forensic accounting, investigative auditing, and internal control systems (Widjanarko et al., 2019).

Forensic Accounting is a specialized field that integrates auditing, accounting, and investigative skills to detect and resolve financial fraud (Sari et al., 2023). Practitioners apply specialized methods to identify, analyze, and compile evidence for legal proceedings, collaborating with law enforcement, lawyers, and relevant parties to address fraudulent activities professionally (Sofyani, 2025a). Its scope spans both public and private sectors: in the public sector, it focuses on state financial losses such as corruption cases, while in the private sector, it addresses contract breaches and corporate fraud. Central to forensic accounting is the “forensic triangle” of loss, unlawful action, and causal relationships, linking accounting, law, and auditing to resolve legal issues (Putri et al., 2024; Rashinta, 2021). Unlike regular audits, which assess the fairness of financial statements, forensic accounting emphasizes the detection, proof, and investigation of fraud using investigative and analytical techniques, including transaction pattern analysis and evidence testing, and often involves serving as expert witnesses in legal proceedings (Chafif, 2025).

Forensic accounting is distinguished by its high level of professional skill and independence, integrating accounting, auditing, and legal expertise to detect and address fraud, unlike conventional audits that focus mainly on compliance and financial statement fairness (Stenly, 2024). Investigative auditing systematically collects evidence to identify financial irregularities or fraud, considering both numerical data and the contextual background of transactions (Sari et al., 2023). Techniques include physical inspections, third-party confirmations, document analysis, forensic computing, fund tracing, and tax-related methods to uncover fraudulent schemes (Roffia & Poffo, 2025). Auditors play a critical role as analysts and investigators, requiring high competence, integrity, and professionalism to produce reliable findings (Suasri et al., 2025). The primary goal of investigative auditing is to expose illegal or unethical activities, including potential corruption, collusion, or nepotism, with findings submitted to relevant authorities (Sofyani, 2025b; Sukma, 2023). Effective Internal Control Systems (ICS) are essential for ensuring organizational transparency, accountability, and ethical culture, preventing and detecting fraud while moderating the impact of governance, accountability, and participatory practices on performance (Prayitno, 2024; Siahaan, 2024).

This study aims to examine the effect of forensic accounting and investigative auditing on fraud prevention and detection, with the effectiveness of internal control systems as a moderating variable, focusing on BPKP in Central Java. Forensic accounting facilitates early fraud detection through in-depth financial analysis and assessment of internal control weaknesses, while investigative auditing plays a crucial role in gathering evidence to uncover fraud. Internal control systems serve as a primary preventive mechanism by regulating policies, procedures, and oversight to reduce fraud risk. Previous research shows mixed results: some studies report positive and significant effects of forensic accounting and investigative auditing on fraud detection and disclosure, while others indicate that forensic accounting alone may be insufficient without comprehensive skills. Most prior studies have not considered the moderating role of internal controls, which are critical in public sector fraud prevention. Given the high incidence of fraud and corruption in the public sector, this research seeks to address gaps in the literature by exploring how internal control effectiveness can strengthen the impact of forensic accounting and investigative auditing, thereby enhancing governance, transparency, and accountability in financial management.

2. RESEARCH METHOD

This study adopts a quantitative correlational design within a positivist paradigm to examine the relationships among forensic accounting, investigative audit, internal control system effectiveness, and fraud prevention and detection. The research was conducted at the Central Java Representative Office of the Financial and Development Supervisory Agency (BPKP), involving 150 auditors, from which 60 respondents were selected using purposive sampling based on a minimum of one year of work experience, as determined by the Slovin formula with a 10% margin of error. Primary data were collected through structured questionnaires using a five-point Likert scale and analyzed using SmartPLS 4 with the Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach, which is suitable for small samples and complex models. Forensic accounting, investigative audit, internal control system effectiveness, and fraud prevention and detection were measured using established indicators from prior studies and regulations. The measurement model was assessed for validity and reliability, while the structural model was evaluated through multicollinearity, explanatory power, effect size, and predictive relevance. Moderation analysis was also performed to test the role of internal control system effectiveness in moderating the effects of forensic accounting and investigative audit on fraud prevention and detection.

3. RESULTS AND DISCUSSION

Overview of Research Object

The BPKP Representative Office of Central Java Province is one of 34 BPKP regional offices across Indonesia, established

to support BPKP’s mandate in overseeing state and regional financial management as well as national development. Acting as an extension of the central BPKP, this office carries out supervision, audits, and capacity building of internal government oversight within Central Java. Located on Jl. Raya Semarang–Kendal KM 12, Wonosari, Ngaliyan, Semarang, its presence aims to assist the provincial government in enhancing financial accountability and development performance through effective oversight, mentoring, and strengthened collaboration with local stakeholders.

Table 1. Respondent Characteristics of Auditors at BPKP Central Java Province (n = 60).

Category	Indicators	Frequency	Percentage (%)
Gender	Male	25	42%
	Female	35	58%
Age	< 25 years	1	2%
	25–30 years	15	25%
	31–35 years	6	10%
	36–40 years	23	38%
	41–45 years	3	5%
	46–50 years	4	7%
	> 50 years	8	13%
Position	Junior Auditor	17	28%
	Young Auditor	16	27%
	Skilled Auditor	4	7%
	Proficient Auditor	11	18%
	Supervisory Auditor	6	10%
	Intermediate Auditor	6	10%
Years of Service	1–3 years	1	2%
	4–6 years	7	12%
	7–10 years	9	15%
	> 10 years	24	40%
	> 15 years	19	32%

Table 1 shows that the respondents are predominantly female (58%) and mostly aged between 36–40 years (38%), indicating a mature and productive workforce. In terms of position, the largest proportions are Junior Auditors (28%) and Young Auditors (27%), reflecting a balanced composition between early and intermediate career levels. Furthermore, the majority of respondents have extensive work experience, with 40% having more than 10 years of service and 32% exceeding 15 years, suggesting that the data are largely informed by experienced auditors with substantial professional exposure.

Inferential Analysis

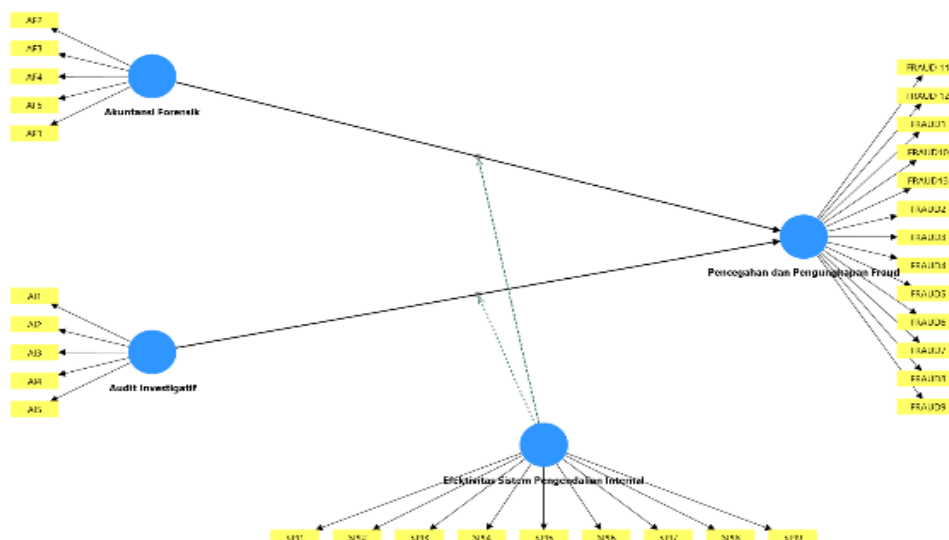


Figure 1. Latent Variable Model of Research

Measurement Model Test (Outer Model)

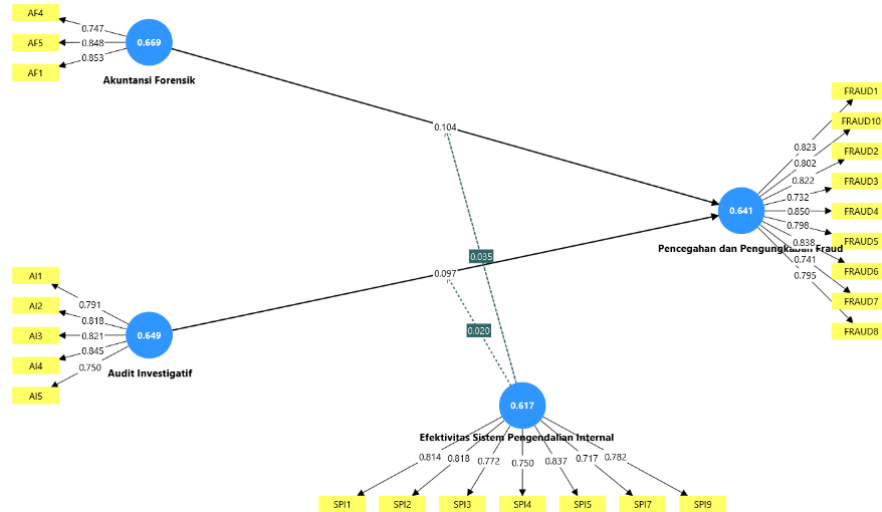


Figure 2. Outer Model

Convergent Validity

Table 2. Outer Loading Results of Convergent Validity Test

Indicator	Forensic Accounting	Investigative Audit	Effectiveness of Internal Control System	Fraud Prevention and Disclosure	Moderasi
AF1	0.853				
AF4	0.747				
AF5	0.848				
AI1		0.791			
AI2		0.818			
AI3		0.821			
AI4		0.845			
AI5		0.750			
SPI1			0.814		
SPI2			0.818		
SPI3			0.772		
SPI4			0.750		
SPI5			0.837		
SPI7			0.717		
SPI9			0.782		
FRAUD1				0.823	
FRAUD2				0.822	
FRAUD3				0.732	
FRAUD4				0.850	
FRAUD5				0.798	
FRAUD6				0.838	
FRAUD7				0.741	
FRAUD8				0.795	
FRAUD10				0.802	
SPI x AF					1.000
SPI x AI					1.000

Source: Primary Data, 2025

Based on the convergent validity test results in Table 2, all indicators show outer loading values above the 0.70 threshold, indicating good validity. The independent variable Forensic Accounting has three valid indicators (AF1, AF4, AF5) with loadings ranging from 0.747 to 0.853, while all five indicators of Investigative Audit (AI1–AI5) are also valid with values between 0.750 and 0.845. The moderating variable Effectiveness of Internal Control System is represented by seven valid indicators (SPI1–SPI5 and SPI7) with loadings from 0.717 to 0.837, and the dependent variable Fraud Prevention and Disclosure consists of nine valid indicators (Fraud1–Fraud8 and Fraud10) with loadings ranging from 0.732 to 0.850. In addition, the interaction terms SPI × AF and SPI × AI each exhibit a loading value of 1.000, indicating that the moderating constructs were perfectly formed in accordance with PLS-SEM procedures. Overall, all indicators demonstrate loading factors above 0.70, confirming that the constructs used in this study are valid and exhibit strong correlations.

Average Variance Extracted (AVE)

Table 3. AVE Results of Convergent Validity Test

Variables	Average variance extracted (AVE)
Forensic Accounting	0.669
Investigative Audit	0.649
Effectiveness of Internal Control System	0.617
Fraud Prevention and Disclosure	0.641

Source: Primary Data, 2025

Based on the **Table 3.** the Average Variance Extracted (AVE) values for all constructs exceed 0.6, indicating that the data meet the criteria for convergent validity. Furthermore, the combined assessment of outer loadings and AVE results confirms that the constructs demonstrate adequate convergent validity and reliability, indicating that the measurement model is acceptable.

Fornell-Larcker Criterion

Table 4. Fornell-Larcker Criterion Discriminant Validity Test

Variables	Forensic Accounting	Investigative Audit	Effectiveness of Internal Control System	Fraud Prevention and Disclosure
Forensic Accounting	0.818			
Investigative Audit	0.434	0.806		
Effectiveness of Internal Control System	0.335	0.642	0.785	
Fraud Prevention and Disclosure	0.515	0.653	0.666	0.801

Source: Primary Data, 2025

Discriminant validity testing using the Fornell–Larcker criterion indicates that all constructs in the model meet the requirements proposed by Hair et al. (2022), as the square roots of AVE for Forensic Accounting (0.818), Investigative Audit (0.806), Effectiveness of the Internal Control System (0.785), and Fraud Prevention and Disclosure (0.801) are higher than the inter-construct correlations, confirming that each construct explains its own indicators better than those of other constructs.

Cross Loading

Table 5. Cross Loading Discriminant Validity Test

Indicators	Forensic Accounting	Investigative Audit	Effectiveness of Internal Control System	Fraud Prevention and Disclosure	Moderasi	Moderasi
AF1	0.853	0.443	0.345	0.428	-0.127	-0.304
AF4	0.747	0.210	0.324	0.371	-0.241	-0.183
AF5	0.848	0.393	0.169	0.459	-0.425	-0.521
AI1	0.439	0.791	0.506	0.627	-0.246	-0.633
AI2	0.281	0.818	0.493	0.433	-0.492	-0.613
AI3	0.379	0.821	0.485	0.553	-0.349	-0.496
AI4	0.406	0.845	0.563	0.580	-0.089	-0.648
AI5	0.138	0.750	0.558	0.337	-0.401	-0.394
SPI1	0.247	0.542	0.814	0.618	-0.332	-0.489
SPI2	0.379	0.541	0.818	0.502	-0.387	-0.428
SPI3	0.347	0.504	0.772	0.542	-0.352	-0.297

SPI4	0.153	0.393	0.750	0.400	-0.227	-0.345
SPI5	0.290	0.582	0.837	0.603	-0.213	-0.526
SPI7	0.061	0.495	0.717	0.425	-0.314	-0.337
SPI9	0.308	0.442	0.782	0.509	-0.413	-0.404
FRAUD1	0.398	0.528	0.564	0.823	-0.463	-0.444
FRAUD2	0.433	0.560	0.541	0.822	-0.244	-0.549
FRAUD3	0.339	0.430	0.449	0.732	-0.388	-0.631
FRAUD4	0.280	0.498	0.551	0.850	-0.421	-0.448
FRAUD5	0.441	0.613	0.592	0.798	-0.072	-0.458
FRAUD6	0.478	0.474	0.559	0.838	-0.215	-0.576
FRAUD7	0.400	0.501	0.472	0.741	-0.137	-0.614
FRAUD8	0.471	0.497	0.479	0.795	-0.208	-0.566
FRAUD10	0.448	0.574	0.566	0.802	-0.438	-0.285
SPI x AF	-0.335	-0.429	-0.316	-0.428	1.000	0.408
SPI x AI	-0.309	-0.706	-0.696	-0.514	0.408	1.000

Source: Primary Data, 2025

Based on the results of the discriminant validity test using the cross-loading method, all indicators of Forensic Accounting (AF), Investigative Audit (AI), Effectiveness of Internal Control System (SPI), and Fraud Prevention and Disclosure (FRAUD) show higher loading values on their respective latent variables than on other latent variables. Overall, this cross-loading pattern confirms that each latent variable in the model demonstrates good discriminant validity and is empirically distinct from one another.

Heterotrait-Monotrait Ratio (HTMT)

Table 6. HTMT Discriminant Validity Test

Variables	Forensic Accounting	Investigative Audit	Effectiveness of Internal Control System	Fraud Prevention and Disclosure	Moderasi
Forensic Accounting					
Investigative Audit	0.496				
Effectiveness of Internal Control System	0.416	0.727			
Fraud Prevention and Disclosure	0.610	0.692	0.714		
SPI x AF	0.380	0.425	0.324	0.447	
SPI x AI	0.364	0.773	0.738	0.528	0.408

Source: Primary Data, 2025

Discriminant validity testing using the Heterotrait–Monotrait Ratio (HTMT) indicates that all inter-construct values are well below the recommended threshold of 0.9, confirming that all constructs in the model demonstrate strong discriminant validity.

Composite Reliability

Table 7. Composite Reliability Test

Variables	Cronbach's alpha	Composite reliability (rho_c)
Forensic Accounting	0.717	0.810
Investigative Audit	0.864	0.900
Effectiveness of Internal Control System	0.905	0.939
Fraud Prevention and Disclosure	0.929	0.922

Source: Primary Data, 2025

Overall, the Cronbach’s Alpha and Composite Reliability values indicate that all constructs in the model meet the reliability criterion (≥ 0.70), confirming that the indicators consistently and accurately measure the latent variables.

Multicollinearity (VIV)

Based on the collinearity test results, most VIF values are below 3, indicating no serious multicollinearity among the variables in the model. Although several variables show VIF values above 3, these fall within the range of 3–5, which reflects only moderate and acceptable multicollinearity. Overall, the VIF results confirm that the model is free from critical multicollinearity issues and that the relationships among predictor constructs are stable, allowing the path coefficient analysis to be conducted without the risk of bias due to intercorrelations among variables.

Coefficient of Determination (R^2)

Table 8. Coefficient of Determination (R^2)

Variables	R-square	R-square adjusted
Fraud Prevention and Disclosure	0.602	0.566

Source: Primary Data, 2025

The coefficient of determination (R^2) indicates that the structural model has strong explanatory power for the dependent variable, Fraud Prevention and Disclosure, with an R^2 value of 0.608, which falls within the moderate-to-strong range. The adjusted R^2 of 0.566 further confirms the model's stability after accounting for the number of predictors, as the small difference between R^2 and adjusted R^2 suggests that the included predictors contribute meaningfully without causing overfitting. Overall, the model explains more than half of the variance in Fraud Prevention and Disclosure, demonstrating solid predictive quality and suitability for further analysis.

Effect Size (F^2)

Table 9. Effect Size (F^2) Values

Direct Influence Between Variables	Effect Size (F^2)
Forensic Accounting > Fraud Prevention and Disclosure	0.104
Investigative Audit > Fraud Prevention and Disclosure	0.097
Effectiveness of Internal Control System x Forensic Accounting > Fraud Prevention and Disclosure	0.035
Effectiveness of Internal Control System x Investigative Audit > Fraud Prevention and Disclosure	0.020

Source: Primary Data, 2025

The effect size (F-square) results indicate that Forensic Accounting ($F^2 = 0.104$) and Investigative Audit ($F^2 = 0.097$) have small effects, reflecting weak contributions to Fraud Prevention and Disclosure. In contrast, the Effectiveness of the Internal Control System shows a moderate-to-large effect ($F^2 = 0.234$), indicating a substantive contribution to the dependent variable. Furthermore, the moderating effects of the Internal Control System \times Forensic Accounting and Internal Control System \times Investigative Audit interactions yield small effect sizes ($F^2 = 0.035$ and 0.020), suggesting weak moderating influences on fraud prevention and disclosure.

Q- Square Predictive Relevance (Q^2)

Table 9 Q-Square Values

Variables	Q^2 predict
Fraud Prevention and Disclosure	0.197

Source: Primary Data, 2025

The predictive relevance test using Q^2 predict produced a Q-square value of 0.197, indicating strong predictive accuracy. Thus, based on the PLS-Predict procedure, the model demonstrates very good predictive capability for the Fraud Prevention and Disclosure variables.

Significance Test (Hypothesis)

Table 10. Path Coefficients

Variables	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	t-statistics (O/STDEV)	p-values
Forensic Accounting -> Fraud Prevention and Disclosure	0.231	0.225	0.158	1.456	0.146
Investigative Audit -> Fraud Prevention and Disclosure	0.307	0.300	0.141	2.179	0.029
Effectiveness of Internal Control System x Forensic Accounting -> Fraud Prevention and Disclosure	-0.111	-0.079	0.175	0.636	0.525
Effectiveness of Internal Control System x Investigative Audit -> Fraud Prevention and Disclosure	0.084	0.044	0.132	0.636	0.525

Source: Primary Data, 2025

Discussion

The Impact of Forensic Accounting on Fraud Prevention and Disclosure

Based on the hypothesis testing results, the original sample value is 0.231 with a p-value of 0.146 and a t-statistic of 1.456, which do not meet the rule of thumb (p-value < 0.05 and t-statistic > 1.96); therefore, the first hypothesis (H1) is rejected, indicating that forensic accounting has no significant effect on fraud prevention and disclosure. This finding suggests that forensic accounting has not been effective in preventing and uncovering fraud in the public sector due to the limited forensic knowledge, investigative skills, and legal understanding of government auditors, resulting in suboptimal application and weak anti-fraud efforts. This result is consistent with Pratopo, (2023), which also found that forensic accounting does not significantly influence fraud detection and disclosure, emphasizing the need to strengthen forensic accounting competencies that integrate accounting, auditing, investigation, and legal expertise.

The Impact of Investigative Audits on Fraud Prevention and Disclosure

Hypothesis testing results show an original sample value of 0.307, with a p-value of 0.029 and a t-statistic of 2.179, meeting the rule of thumb criteria (p-value < 0.05 and t-statistic > 1.96). Therefore, the second hypothesis (H2) is accepted, indicating that Investigative Audit has a significant effect on Fraud Prevention and Disclosure. This finding suggests that investigative audits, which are highly focused, in-depth, and evidence-based, play a crucial role in identifying and uncovering fraudulent activities through targeted examination of financial reports and transactions. The results are consistent with Reskino, (2023), which found that well-implemented investigative audits significantly enhance fraud disclosure by applying analytical procedures, document tracing, third-party confirmations, and interviews, thereby increasing the likelihood of detecting concealed fraud.

The Effect of Effectiveness of Internal Control System Moderating Forensic Accounting on Fraud Prevention and Disclosure

Based on the hypothesis testing results, the original sample value is -0.111 with a p-value of 0.525 and a t-statistic of 0.636, which do not meet the rule of thumb (p-value < 0.05 and t-statistic > 1.96). Therefore, the third hypothesis (H3) is rejected, indicating that the Effectiveness of the Internal Control System does not moderate the relationship between Forensic Accounting and Fraud Prevention and Disclosure. These findings suggest that when internal control systems are not effectively implemented, the role of forensic accounting in detecting and disclosing fraud becomes less effective, as weaknesses in internal controls reduce the ability to trace and substantiate fraudulent activities. This result is consistent with Astuty, (2019) showing that internal control systems may have no effect or even a negative impact on fraud prevention, particularly when they are poorly implemented or excessively bureaucratic, leading to slow responses, ineffective application of key control components, and improper delegation of authority that can create opportunities for fraud.

The Effect of Effectiveness of Internal Control System Moderating Investigative Audit on Fraud Prevention and Disclosure

Based on the hypothesis testing results, the original sample value of 0.084 with a p-value of 0.525 and a t-statistic of 0.636 does not meet the rule of thumb (p-value < 0.05 and t-statistic > 1.96), indicating that the fourth hypothesis (H4) is rejected. This finding demonstrates that the effectiveness of the internal control system does not moderate the relationship between investigative audit and fraud prevention and disclosure. In other words, weak internal controls reduce the accuracy, timeliness, and impact of investigative audit findings in supporting anti-fraud efforts. These results are consistent with Akhtar et al., (2022) and Rohmah et al., (2023), who found that internal control systems do not significantly influence fraud prevention, thereby failing to support fraud triangle theory, particularly the role of opportunity, due to ineffective risk detection and low employee awareness of organizational regulations.

4. CONCLUSION

Based on data analysis using SEM-PLS on 60 respondents at BPKP Central Java, this study concludes that forensic accounting does not have a significant effect on fraud prevention and disclosure in the public sector, mainly due to limited forensic knowledge and skills among government auditors, while investigative audit has a significant positive effect in identifying and uncovering fraud. The effectiveness of the internal control system does not moderate the relationship between either forensic accounting or investigative audit and fraud prevention and disclosure, as weaknesses in internal controls reduce the effectiveness of both approaches. This study is limited by the use of survey data that may reflect normative rather than actual conditions, a sample restricted to auditors at BPKP Central Java, and the focus on only two independent variables and one moderating variable. Therefore, future research is recommended to apply more accurate data collection methods such as interviews or observations, expand the sample to include auditors from various institutions, and incorporate additional independent, moderating, or intervening variables to better explain fraud prevention and disclosure in the public sector.

RECOMMENDATIONS

Based on the study results, it is recommended that public sector institutions enhance auditors' forensic accounting competencies through targeted training and professional development, while strengthening the implementation of investigative audits that have proven effective in fraud detection. Additionally, improving the effectiveness of internal

control systems is crucial to support both approaches. Future research should apply more accurate data collection methods, expand the sample across various public sector institutions, and include additional variables to provide a more comprehensive explanation of fraud prevention and disclosure in the public sector.

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AUTHOR'S CONTRIBUTIONS

The author, an undergraduate student of Accounting at Universitas Muhammadiyah Surakarta, independently contributed to all stages of this research, including research design, data collection, data analysis using SEM-PLS, interpretation of results, and manuscript preparation. All analyses and conclusions presented in this study are the sole responsibility of the author.

CONFLICT OF INTEREST

There is no conflict of interest related to the publication of this manuscript.

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