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# Professional Skepticism, Time Pressure, and Auditor Independence in Fraud Detection: The Moderating Role of Professional Ethics

Aditya<sup>1</sup>, Dhaniel Syam<sup>1</sup> and Firda Ayu Amalia<sup>1</sup>

<sup>1</sup>Department of Accounting, Faculty of Economics and Business, University of Muhammadiyah Malang, Indonesia

\*Correspondence: [firdaayu@umm.ac.id](mailto:firdaayu@umm.ac.id)

## ABSTRACT

**Study's aims:** This study examines the effects of professional skepticism,, time pressure, auditor independence, and professional ethics on fraud detection and the moderating role of professional ethics. **Design/Methodology/Approach:** This study employs a quantitative approach, using survey data collected via structured questionnaires from external auditors working at Public Accounting Firms (PAFs) and registered with the Indonesian Institute of Certified Public Accountants in the regions of Sulawesi, Maluku, and Papua. The data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to examine both direct and moderating effects. **Findings:** The results indicate that professional ethics has a positive and significant effect on fraud detection. Time pressure also shows a positive and significant effect, suggesting that moderate time constraints may enhance auditors' focus and efficiency. In contrast, professional skepticism, and auditor independence have positive but insignificant effects. Furthermore, professional ethics does not significantly moderate the relationships between professional skepticism,, time pressure, and auditor independence and fraud detection. **Theoretical contribution/Originality:** This study contributes to the Fraud Pentagon perspective by highlighting the central role of ethical values in strengthening fraud detection and providing evidence that time pressure may function as a performance driver rather than a constraint. **Practitioner/Policy implication:** The findings suggest that audit firms should strengthen their ethical culture and manage audit time effectively to improve the quality of fraud detection.

**Keywords:** Professional skepticism; Time pressure; Auditor independence; Professional ethics; Fraud detection



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## Introduction

Fraud remains a serious issue in Indonesian auditing and accounting practices. The Survey Fraud Indonesia 2025, conducted by the Association of Certified Fraud Examiners (ACFE) Indonesia Chapter, shows that corruption is the most common type of Fraud, accounting for 47.6%, followed by asset misappropriation at 40.2% and financial statement fraud at 12.2%. Among the total fraud cases, the government sector recorded the highest proportion at 15%, followed by construction (14%), banking and financial services (12%), healthcare (12%), and insurance (10%). The estimated financial losses from Fraud in Indonesia range from IDR 1 billion to IDR 50 billion, accounting for approximately 30.9% of total cases. Despite the significant potential losses, external auditors contribute only about 6% to fraud detection, far below internal tips (53.24%) and internal audit (19.18%) (ACFE, 2025). These figures indicate the relatively low effectiveness of external auditors in detecting Fraud early. At the global level, the Report to the Nations 2024, published by ACFE, reports 1,921

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fraud cases across 138 countries, with estimated losses averaging 5% of organizations' annual revenues. More than half of occupational fraud cases occur due to weak internal controls (32%) or the override of existing controls (19%). Most cases are detected through tips (43%), while the role of external audit remains limited globally at only 3%. This condition underscores the need to strengthen the external auditors' role in early fraud detection.

This study is grounded in the Fraud Pentagon Theory, which is an extension of the Fraud Triangle developed by Donald Cressey in 1953 and the Fraud Diamond introduced by David Wolfe and Dana Hermanson in 2004. The Fraud Pentagon Theory was introduced by Jonathan Marks in 2010. This theory explains the underlying factors that drive individuals to commit Fraud and provides a more comprehensive framework for understanding fraud risk within organizations.

Previous studies have shown that professional Skepticism,, auditor independence, and time pressure significantly influence auditors' ability to detect Fraud, while other studies report insignificant results, particularly when linked to professional ethics factors. These inconsistent findings suggest the presence of different factors that may affect auditors' effectiveness in detecting Fraud. Research by Elfia and NR (2022) found that professional Skepticism, did not affect auditors' fraud-detection ability at the Indonesian Supreme Audit Agency in West Sumatra. Although auditors may possess a sceptical attitude, structural limitations and work environment characteristics may restrict the practical role of Skepticism, in detecting Fraud.

In contrast, research by Ramadhany et al. (2025) found that professional Skepticism, plays an important role in strengthening the relationship between red flag awareness and fraud detection ability. Auditors with higher levels of Skepticism, and strong professional confidence tend to be more effective in identifying Fraud. This finding suggests that professional Skepticism, is closely related to auditors' integrity and ethical sensitivity in assessing financial risks. Agustina and Rusydi (2021) found that professional skepticism, and auditor independence positively affect fraud detection, whereas time pressure negatively impacts it. High time pressure encourages auditors to accelerate audit completion, thereby reducing caution and accuracy. These findings emphasize the importance of professional ethics in maintaining audit objectivity and quality under work pressure.

International evidence, such as Sakawa and Watanabel (2022) study, indicates that weak fraud detection is often due to strong economic relationships between auditors and clients, which may reduce auditor independence and professionalism. Long-term business interests, such as maintaining relationships with major clients, can create conflicts of interest that compromise auditor integrity when reporting fraud findings. Auditors may hesitate to issue strict audit opinions due to concerns about losing strategic clients, thereby reducing their assertiveness in fraud detection.

The study of Maimunah and Challen (2025) further emphasized that auditors' failure to identify Fraud can erode public trust. Auditors are expected not only to verify financial statements but also to identify potential irregularities within audit evidence. However, high time pressure and heavy workloads often limit auditors' thoroughness. Auditors with strong professional Skepticism, and high competence are more careful in evaluating doubtful evidence and more effective in identifying fraud indicators. Research by Graham (2019) confirms that professional Skepticism,, independence, and auditor competence simultaneously influence fraud detection ability. Suhayati and Thufailah (2024) also found that audit quality control systems and the application of professional Skepticism, directly contribute to effective fraud detection. The ACFE (2025) data showing that only 6% of fraud cases are detected by external auditors further reinforces the need to strengthen professional ethics and Skepticism, in audit practice.

Overall, prior studies indicate that the effects of professional Skepticism,, time pressure, and auditor independence on fraud detection have produced inconsistent results. Some studies report significant relationships, while others find weak or insignificant effects. These inconsistencies suggest that the relationship between auditor characteristics and fraud detection requires further empirical investigation. Several studies have also identified professional ethics as a potential factor influencing auditors' effectiveness in detecting Fraud. However, empirical evidence on the moderating role of professional ethics in the

relationships among professional Skepticism,, time pressure, auditor independence, and fraud detection remains inconclusive. This situation highlights a research gap, particularly for external auditors in Indonesia, who operate under unique institutional and environmental conditions. This study aims to re-examine the effects of professional Skepticism,, time pressure, and auditor independence on fraud detection by incorporating professional ethics as a moderating variable. The findings are expected to provide more unmistakable empirical evidence to enrich the understanding of how auditor characteristics contribute to detection capability.

This study contributes to the literature in several ways. First, it extends the fraud detection literature by integrating professional ethics as a moderating mechanism that explains the inconsistent findings regarding the effects of professional Skepticism,, time pressure, and independence. Second, this study provides empirical evidence on external auditors in Indonesia, thereby offering contextual insights from a developing-country setting that remains under-researched in prior research. Third, the study enriches the application of the Fraud Pentagon Theory from a behavioral auditing perspective by linking ethical and professional factors to auditors' fraud-detection capabilities. Finally, the findings are expected to have practical implications for audit firms and professional bodies, including strengthening ethical standards, improving auditor professionalism, and enhancing the effectiveness of fraud detection practices.

## Literature Review and Hypotheses Development

### The Fraud Pentagon Theory

The Fraud Pentagon Theory is an extension of earlier fraud theories that explain the underlying reasons why individuals commit Fraud, particularly in the context of accounting and auditing. This framework was introduced by Crowe Horwath in 2010. The theory refines Donald Cressey's Fraud Triangle by adding two elements: competence and arrogance. Previous research indicates that these two elements play an essential role in the occurrence of Fraud. Accordingly, the Fraud Pentagon explains that fraudulent behavior arises from five key elements: pressure, opportunity, rationalization, competence, and arrogance. These elements represent both financial and non-financial factors that may signal the risk of fraudulent financial reporting. The model provides a more comprehensive perspective on the behavioral and organizational conditions that enable Fraud. Irianto and Novianti (2019) highlights an important distinction between the Fraud Triangle and the Fraud Pentagon. The Fraud Triangle primarily focuses on Fraud committed by middle-level management, whereas the Fraud. In contrast, it emphasizes fraud schemes involving top executives such as CEOs and CFOs, which are typically more complex and have a broader organizational impact.

From this study's perspective, the Fraud Pentagon Theory provides a relevant conceptual foundation for understanding the complexity and evolving nature of the fraud risk external auditors face. The presence of competence and arrogance suggests that Fraud is often committed by individuals with high authority, strong technical ability, and confidence to override controls. Such conditions make it more challenging to detect Fraud using standard audit procedures. Therefore, auditors are required to maintain high professional skepticism,, strong ethical standards, and independence, especially when operating under time pressure. By adopting the Fraud Pentagon perspective, this study emphasizes the importance of auditor behavioral and ethical factors in enhancing the effectiveness of fraud detection.

### The Effect of Auditor Professional Skepticism, on Fraud Detection

Professional skepticism, is an auditor's mental attitude characterized by alertness, critical thinking, and the objective evaluation of audit evidence. In the context of the Fraud Pentagon Theory, professional skepticism, helps reduce rationalization and increase auditor vigilance when facing potential fraud risks. The study by Graham (2019) shows that skepticism,, independence, competence, and auditor experience have a positive and significant effect on fraud detection, indicating that professional skepticism, enhances auditors' ability to detect Fraud. This finding is supported by Suhayati and Thufailah (2024), who found that professional skepticism, and audit quality control systems influence the effectiveness of fraud detection. Similar results

were reported by Maimunah and Challen (2025), who concluded that professional skepticism, has a positive and significant effect on auditors' ability to detect Fraud. Auditors with higher professional skepticism, tend to be more sensitive to unusual transactions and financial patterns. Therefore, professional skepticism, is expected to enhance auditors' fraud-detection capabilities. The hypothesis proposed is:

H<sub>1</sub>: Auditor professional skepticism, has a positive effect on fraud detection.

### **The Effect of Time Pressure on Fraud Detection**

Time pressure refers to the time available for a complete audit. Within the Fraud Pentagon framework, time pressure represents a situational factor that influences individual behavior, including professional judgment. Agustina and Rusydi (2021) found that time pressure has a negative relationship with auditors' ability to detect Fraud, as excessive time constraints reduce accuracy and audit effectiveness. Maimunah and Challen (2025) reported that time limitations did not significantly affect fraud detection ability, indicating a potential negative impact of time pressure on audit quality. Similarly, Khairunnisa et al. (2025) found that workload and time pressure do not significantly affect auditors' fraud detection ability. Time pressure influences auditors' focus and attention allocation during the audit process. Therefore, time pressure is expected to affect auditors' ability to detect Fraud. Hence, the thesis proposed is:

H<sub>2</sub>: Time pressure negatively affects fraud detection.

### **The Effect of Auditor Independence on Fraud Detection**

Auditor independence is a fundamental principle that ensures objectivity and freedom in forming audit judgments. From the Fraud Pentagon perspective, independence helps auditors resist personal interests and external pressures. Graham (2019) found that independence, together with skepticism, competence, and experience, has a positive and significant effect on fraud detection capability. This finding is supported by Agustina and Rusydi (2021), who reported that independence strengthens the influence of factors such as competence and experience, thereby improving audit objectivity and judgment quality. Independent auditors can evaluate audit evidence without client pressure or conflicts of interest. Therefore, auditor independence is expected to enhance fraud detection capability. Thus, the hypothesis proposed is:

H<sub>3</sub>: Auditor independence positively affects fraud detection.

### **The Moderating Role of Professional Ethics in the Relationship between Professional Skepticism, and Fraud Detection**

Professional ethics serves as a moral foundation that guides auditors to act honestly, objectively, and responsibly. Within the Fraud Pentagon framework, ethics helps reduce rationalization for deviant behavior. Andi Ramadhany et al. (2025) found that red flag awareness and self-efficacy influence fraud detection both directly and through professional skepticism, indicating the importance of skepticism, in maintaining auditor integrity and reliability. However, Rininda (2024) found that professional ethical commitment does not moderate the relationship between professional skepticism, and fraud detection ability. Professional ethics shape the quality of auditors' judgment when evaluating audit evidence. Thus, professional ethics is expected to influence the strength of the relationship between professional skepticism, and fraud detection. Therefore, the hypothesis proposed is:

H<sub>4</sub>: Professional ethics moderates the relationship between professional skepticism, and fraud detection.

### **The Moderating Role of Professional Ethics in the Relationship between Time Pressure and Fraud Detection**

Professional ethics helps auditors maintain responsibility and due care under work pressure. In the Fraud Pentagon perspective, ethics functions as a behavioral control mechanism when individuals face pressure. Findings by Ramadhany et al. (2025) suggest that awareness of fraud indicators and self-efficacy influence

fraud detection through professional skepticism,. Strong ethical values may reduce the negative impact of time pressure, as ethical auditors are more likely to maintain focus, accuracy, and professional judgment even under tight deadlines. However, Wahyuni and Isnawati (2021) found that professional ethics does not strengthen or weaken the relationship between time pressure and fraud detection ability. Time pressure requires auditors to work quickly, while professional ethics helps maintain responsibility and audit quality. The interaction between the two is therefore expected to influence fraud detection capability. Thus, the hypothesis proposed is:

H<sub>5</sub>: Professional ethics moderates the relationship between time pressure and fraud detection.

### **The Moderating Role of Professional Ethics in the Relationship between Auditor Independence and Fraud Detection**

Professional ethics strengthens auditors' commitment to maintaining independence and objectivity. From the Fraud Pentagon perspective, ethics helps auditors resist pressure and conflicts of interest that may impair independence. Alawsi et al. (2023) emphasized that auditors are expected to maintain independence and professional skepticism, regardless of long-term client relationships or the provision of non-audit services. Ethical integrity helps auditors preserve objectivity and audit reliability. This finding is consistent with Sinaga et al. (2024), who found that auditor ethics strengthens the influence of independence on fraud prevention efforts. Auditor independence becomes more effective when supported by strong ethical values. Therefore, professional ethics is expected to influence the relationship between independence and fraud detection. Thus, the hypothesis proposed is:

H<sub>6</sub>: Professional ethics moderates the relationship between auditor independence and fraud detection.

## **Method**

This study employs a quantitative, explanatory research design to examine relationships among variables empirically. The population consists of external auditors working in Public Accounting Firms (PAF) and registered as members of the Indonesian Institute of Certified Public Accountants in the regions of Sulawesi, Maluku, and Papua, totalling 89 auditors. The sample was selected using purposive sampling to ensure that respondents met specific criteria relevant to the research objectives, namely, external auditors working in Public Accounting Firms and registered as the Indonesian Institute of Certified Public Accountants members. Based on these criteria, 30 auditors were selected as the research sample. External auditors were chosen because they are directly involved in financial statement audits and have professional responsibility for identifying indications of Fraud.

This study uses both primary data. Primary data were collected directly from respondents via a closed-ended online questionnaire distributed via Google Forms. The questionnaire employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Respondents were asked to evaluate statements on professional skepticism,, time pressure, auditor independence, professional ethics, and fraud-detection capability based on their professional experience.

The operationalization of variables was developed based on prior empirical studies. All constructs were measured using multiple indicators adapted from the literature to ensure content validity. The measurement of variables is presented in Table 1.

Data analysis was conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS software, as this method is suitable for analyzing latent variables measured by multiple indicators and for examining moderating relationships. PLS-SEM is appropriate for relatively small sample sizes and does not require multivariate normality assumptions, while emphasizing the prediction and maximization of the explained variance of endogenous constructs (Hair et al., 2019). The analysis procedure involved the simultaneous evaluation of the measurement and structural models. The measurement model consists of

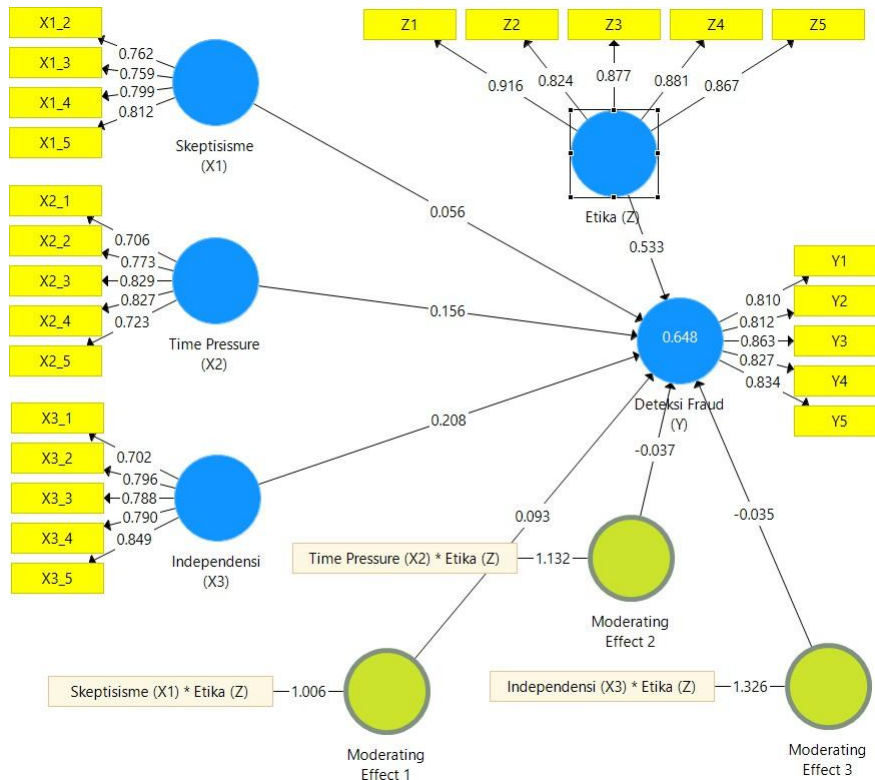
validity and reliability tests. The structural model was examined using the coefficient of determination ( $R^2$ ) to assess explanatory power, the Variance Inflation Factor (VIF) to ensure the model was free of multicollinearity, and Hypothesis testing.

**Table 1** Measurement of Research Variables

Variable	Type	Indicators	Source
Professional Skepticism,	Independent	Curiosity, re-examination of evidence, critical evaluation, verification of information, cautious judgment	(Khairunnisa et al., 2025)
Time Pressure	Independent	Tight deadlines, high workload, external pressure, limited audit time, and audit overtime	(Al-Rawashdeh et al., 2024)
Auditor Independence	Independent	Neutrality, freedom from influence, courage to disclose findings, resistance to intervention, integrity	(Suhayati & Thufailah, 2024)
Professional Ethics	Moderating	Honesty, responsibility, confidentiality, fairness, moral compliance	(Ramadhany et al., 2025)
Fraud Detection Capability	Dependent	Recognition of red flags, understanding fraud patterns, effective audit procedures, risk analysis, and reporting of findings	(Maimunah & Challen, 2025)

### Results

The measurement model evaluation assessed the reliability of the constructs. Convergent validity was examined by analyzing the outer loadings and the Average Variance Extracted (AVE) for each indicator and construct (Hair et al., 2019).



**Figure 1** Convergent Validity (Outer Loading)

Based on the outer loading results in Figure 1, all indicators show loading values above the recommended threshold of 0.60 (Hair et al., 2019). The loading values for each indicator are within acceptable ranges, indicating that all indicators adequately represent their respective latent variables. Therefore, no indicators were removed, and all measurement items were retained for further analysis. These results confirm that the model has achieved adequate indicator-level convergent validity (Hair et al., 2019).

**Table 2** Convergent Validity and Reliability

Variable	Cronbach's Alpha	Composite Reliability	AVE
Professional Skepticism,	0.793	0.864	0.614
Time Pressure	0.832	0.881	0.598
Auditor Independence	0.845	0.890	0.618
Fraud Detection	0.887	0.917	0.688
Professional Ethics	0.922	0.941	0.763

Convergent validity and reliability at the construct level were further confirmed by the Average Variance Extracted (AVE), Cronbach's Alpha, and Composite Reliability values as presented in Table 2. All constructs have AVEs above 0.50, indicating that each construct explains more than half of its indicators' variance. In addition, Cronbach's Alpha values exceed 0.60, and Composite Reliability values exceed 0.70, demonstrating strong internal consistency. Overall, these results indicate that all constructs in this study are valid and reliable, allowing the analysis to proceed to the structural model evaluation (Hair et al., 2019).

**Table 3** Hypotheses Results

Hypothesis	Relationship	Path Coefficient	P-Value	Result
H1	Professional Skepticism, → Fraud Detection	0.056	0.522	Not supported
H2	Time Pressure → Fraud Detection	0.156	0.035	Not Supported (Positive Significant)
H3	Auditor Independence → Fraud Detection	0.208	0.178	Not supported
NH	Professional Ethics → Fraud Detection	0.533	0.000	Significant
H4	Professional Skepticism, × Ethics → Fraud Detection	0.093	0.393	Not supported
H5	Time Pressure × Ethics → Fraud Detection	-0.037	0.638	Not supported
H6	Independence × Ethics → Fraud Detection	-0.035	0.683	Not supported
R-Square Adjusted		0.618		
VIF Range		1.000 to 4.231		

Note: NH= Not Hypotheses

Table 3 presents the results of hypothesis testing using the bootstrapping procedure in the PLS-SEM analysis. The structural model shows an adjusted R<sup>2</sup> value of 0.618 for the Fraud Detection variable, indicating that professional skepticism, time pressure, auditor independence, professional ethics, and their interaction terms explain 61.8% of the variance in fraud detection. This value reflects a moderate to substantial level of explanatory power. In addition, the Variance Inflation Factor (VIF) values range from 1.000 to 4.231, which are below the recommended threshold of 5.00, indicating that multicollinearity is not a concern in the model.

The hypothesis testing results indicate that professional skepticism, does not have a significant effect on fraud detection ( $\beta = 0.056$ ;  $p = 0.522$ ), and thus H1 is not supported. Time pressure shows a positive and significant impact on fraud detection ( $\beta = 0.156$ ;  $p = 0.035$ ); however, because the hypothesized direction was negative, H2 is not supported. Auditor independence is also found to have no significant effect on fraud detection ( $\beta = 0.208$ ;  $p = 0.178$ ), leading to the rejection of H3. In contrast, professional ethics has a strong,

positive, and significant direct effect on fraud detection ( $\beta = 0.533$ ;  $p = 0.000$ ), indicating that ethics plays an important role in improving audit fraud detection capability.

The moderating analysis further shows that professional ethics does not significantly moderate the relationship between professional skepticism, and fraud detection ( $\beta = 0.093$ ;  $p = 0.393$ ), time pressure and fraud detection ( $\beta = -0.037$ ;  $p = 0.638$ ), or auditor independence and fraud detection ( $\beta = -0.035$ ;  $p = 0.683$ ). Therefore, H4, H5, and H6 are not supported. Overall, the findings suggest that among the tested variables, only professional ethics has a significant direct influence on fraud detection, while the other direct and moderating effects are not statistically supported.

## Discussions

The results of this study provide several important insights into the determinants of auditors' fraud detection capability from the perspective of the Fraud Pentagon framework. Overall, the findings indicate that professional ethics plays a more central role than the other variables, while several expected relationships were not statistically supported.

First, professional skepticism, was found to have a positive but insignificant effect on fraud detection (H1 unsupported). This finding suggests that although auditors tend to maintain a questioning mindset, such an attitude alone is not sufficient to improve fraud detection capability. This result is consistent with Elfia and NR (2022), Piserah et al. (2022), and Kurniawan and Kurniawati (2024), who reported that professional skepticism, does not significantly influence auditors' ability to detect Fraud. One possible explanation is that skepticism, primarily functions as a mental attitude rather than as an operational audit action. Without adequate audit procedures, sufficient experience, and access to relevant information, a sceptical mindset may not translate into effective fraud identification. As highlighted by Rahmawati (2021), the effectiveness of professional skepticism, often depends on supporting factors such as audit experience and task complexity. This finding implies that organizational and procedural support may be more critical than individual attitude alone.

Second, time pressure shows a positive and significant effect on fraud detection (H2 unsupported, positive and significant). However, this result is anomalous because the hypothesis predicted a negative relationship. Traditionally, time pressure is considered to reduce audit quality due to limited time for evidence evaluation (McClam, 2023). Nevertheless, the positive effects observed in this study suggest that moderate levels of time pressure enhance auditors' focus, alertness, and efficiency. Castillo Gonzalez (2026) also found that well-managed time constraints increase auditors' vigilance in identifying red flags, enabling them to address constraints by prioritizing high-risk areas and intensifying their analytical efforts. Therefore, results suggest that time pressure does not always have a detrimental effect; appropriately managed (Gärling et al., 2014), it can serve as a motivational factor that improves performance. This unexpected finding contributes to the literature by indicating that the impact of time pressure depends on its intensity and organizational management.

Third, auditor independence has a positive but insignificant effect on fraud detection (H3 unsupported). This result indicates that although higher independence tends to be associated with better detection capability, the relationship is not strong enough to be statistically confirmed. Similar findings were reported by Anggiriawan and Jayawarsa (2024), who found that independence does not directly influence fraud detection. Independence appears to function more as a professional foundation for maintaining objectivity rather than as a direct determinant of detection effectiveness. The ability to identify Fraud may depend more on technical competence, audit procedures, and experience than on independence alone.

Regarding the moderating effects, professional ethics was found not to moderate the relationship between professional skepticism, and fraud detection (H4 unsupported). This finding supports Rininda (2024), who reported that ethical commitment does not strengthen the effectiveness of professional skepticism,. Ethics tends to shape general professional behavior rather than enhancing the operational impact of

skepticism. Studies by Verwey and Asare (2022) and Almalki et al. (2025) also suggest that ethical values may work indirectly rather than through interaction effects. In this context, ethics functions as an individual moral foundation rather than as a strengthening mechanism for specific cognitive attitudes.

Similarly, professional ethics does not moderate the relationship between time pressure and fraud detection (H5 unsupported). This finding is consistent with Wahyuni and Isnawati (2021), who found that ethics neither strengthens nor weakens the impact of time pressure. Under tight deadlines, auditors tend to focus on completing essential audit procedures, and performance is more influenced by time management, workload allocation, and organizational support than by ethical considerations. Conceptually, ethics serves as a behavioral guideline for maintaining professionalism, while the effectiveness of fraud detection under time constraints is determined primarily by managerial and technical factors (Santoso & Yanti, 2025). This result further reinforces the earlier anomaly: the impact of time pressure appears to be driven more by operational conditions than by ethical reinforcement.

Finally, professional ethics does not moderate the relationship between auditor independence and fraud detection (H6 unsupported). This result supports Soenjaya (2024), who found that auditor ethics does not strengthen the effect of autonomy on audit quality. Independence already functions as a core professional principle, while ethics serves as a general value framework rather than an interaction mechanism. Previous studies indicate that ethics has a direct influence on auditor behavior rather than acting as a moderator. This interpretation is consistent with the main finding of this study, which shows that professional ethics has a substantial direct effect on fraud detection (Wahyuni & Isnawati, 2021).

Overall, the results suggest that professional ethics plays a fundamental role as a direct determinant of fraud detection capability. In contrast, professional skepticism, and independence alone are insufficient without operational and organizational support. The most notable finding is the anomalous positive effect of time pressure, suggesting that moderate, well-managed pressure may enhance auditor performance. This finding highlights the importance of audit time management policies and suggests that future research should distinguish between dysfunctional and performance-enhancing time pressure in the audit environment.

## Conclusion

This study investigates the effects of professional skepticism, time pressure, and auditor independence on fraud detection capability and the moderating role of professional ethics within the Fraud Pentagon perspective. The results indicate that professional skepticism, and auditor independence have positive but insignificant effects on fraud detection. These findings suggest that although auditors possess a questioning mindset and maintain objectivity, these attributes alone are not sufficient to directly improve fraud detection without support from adequate audit procedures, experience, and access to relevant information. In contrast, time pressure shows a positive, significant effect on fraud detection, an anomalous finding compared to the commonly expected negative relationship. This result implies that time pressure, when maintained at a manageable level, may increase auditors' focus, alertness, and efficiency in evaluating audit evidence. Furthermore, professional ethics has a significant direct effect on fraud detection, underscoring the crucial role of ethical values in shaping auditors' responsibility, integrity, and professional judgment. However, professional ethics does not moderate the relationships between professional skepticism, time pressure, and auditor independence and fraud detection; instead, it functions more as a fundamental profession than a strategic or enabling factor among these variables.

The findings provide several practical and theoretical implications. From a practical perspective, public accounting firms should strengthen their integrity systems, as ethics has been proven to enhance fraud-detection capabilities directly. In addition, audit time allocation should be managed effectively, as moderate time pressure may improve auditor performance rather than reduce audit quality. Training programs should also focus not only on developing sceptical attitudes but also on improving technical competence, audit procedures, and practical experience to translate professional attitudes into effective fraud detection actions. From a theoretical perspective, this study contributes to the Fraud Pentagon literature by highlighting that

organizational and situational factors, particularly ethical values and work pressure conditions, play a more critical role than individual professional attributes alone.

This study has several limitations. First, the relatively small sample size and the focus on auditors in specific regional public accounting firms limit the generalizability of the findings. Second, the use of self-reported questionnaire data may introduce response bias and may not fully capture actual auditor behavior in real audit situations. Third, this study examines only a limited set of variables. In contrast, fraud detection capability may also be influenced by other factors, such as audit experience, competence, organizational support, audit technology, and the complexity of fraud risk. Future research is recommended to use larger, more diverse samples, incorporate additional variables, and consider experimental or mixed-methods approaches to obtain a more comprehensive understanding of the factors affecting fraud detection.

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## Conflict of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study, the collection, analysis, or interpretation of data, the writing of the manuscript, or the decision to publish the results.