

The Role of Forensic Accounting Skills on Fraud Detection with Self-Efficacy as an Intervening Variable and CAATS as Moderating Variable: a Study in Investigation Unit of BPK RI

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Abstract

This research aims to investigate the influence of forensic accounting skills on fraud detection through an auditor's self-efficacy. Additionally, the study introduces CAATTs as a moderating variable. Hypotheses were tested using SPSS. The research finds that forensic accounting skills, including technical and analytical skills, psycho-social skills, and accounting and auditing skills, have a positive and significant impact on auditor self-efficacy. Conversely, effective communication skills were found to have no significant influence on auditor self-efficacy. Furthermore, self-efficacy and CAATT were found to positively and significantly influence fraud detection. However, CAATT was found unable to moderate the influence of self-efficacy on fraud detection. These findings imply the need for auditor in BPK RI to focus on enhancing technical and analytical, psychosocial, and accounting and auditing skills to boost their confidence in detecting fraud within audited entities. Future research is recommended to broaden the scope beyond investigative units to encompass all units within the BPK RI to explore broader variables impacting fraud detection as part of anti-corruption efforts.

Key words: Fraud Detection, Audit, Forensic Accounting, CAATTs

INTRODUCTION

Financial accountability by state officials is crucial. It serves not only as a means of evaluating performance but also plays a significant role in shaping public perception. Through the reports provided, the public can see how taxes collected are being used effectively. Therefore, the accountability process is a mandatory step for state officials. This accountability takes the form of financial reports, which are then audited to ensure accuracy,

reliability, and compliance with standards. Unfortunately, fraud in the management of state finances still occurs.

According to the Association of Certified Fraud Examiners (ACFE, 2024), fraud is an illegal act committed by individuals inside and/or outside an organization to gain personal or collective benefits, causing direct harm to others. Fraud can be classified into three types: corruption, asset misappropriation, and financial statement fraud, collectively known as the "fraud tree". According to the Indonesia Corruption Watch (ICW) in its 2022 annual report, Indonesia's Corruption Perception Index (CPI) dropped from 38 to 34, ranking the country 110th out of 180 countries, placing Indonesia among the world's most corrupt nations. This indicates a need for significant improvements in combating corruption.

According to Article 23, paragraph (5) of the Undang-Undang Dasar Negara Republik Indonesia Tahun 1945, the Audit Board of the Republic of Indonesia (BPK) is tasked with auditing state financial management and accountability. Article 6, paragraph (3) explains that BPK's audits include financial audits, performance audits, and specific-purpose audits. BPK reports its findings to the House of Representatives (DPR) and the President. Under BPK Regulation No. 1 of 2020, BPK conducts investigative audits to uncover indications of state/regional financial losses and/or criminal elements, including calculating such losses. BPK can provide expert testimony in court concerning state/regional financial losses based on BPK's findings. BPK actively combats corruption through investigative audits, financial loss assessments, and expert testimony. According to Peraturan BPK No. 1 of 2019, the Auditorat Utama Investigasi is responsible for investigative audits of state financial management, financial loss calculation, and providing expert testimony. Investigative auditors aim to uncover any indications of state/regional financial losses and/or criminal elements in financial management, acting independently. If fraud is detected, they assess the financial loss caused. Forensic accounting skills are crucial for investigative auditors to perform their duties effectively. Research indicates that such skills significantly impact fraud detection, with various factors influencing these capabilities.

The use of Computer-Assisted Audit Techniques (CAATs) is increasingly important for fraud detection. The CPA Journal (2024) explains that CAATs evaluate the accuracy and reliability of electronic data, helping to identify fraud and other anomalies. CAATs can quickly and accurately analyze large data sets, making them a valuable tool in forensic audits. Strengthening integrity and transparency in public financial management requires enhancing forensic accounting skills. Chukwu et al. (2019) categorize these skills into technical and analytical skills, effective communication skills, psycho-social skills, and accounting and auditing skills. Forensic accounting provides essential tools and techniques for identifying, analyzing, and exposing complex frauds that traditional auditing methods

may not detect. Additionally, CAATs enable auditors to detect anomalies that manual techniques might miss, enhancing the effectiveness and efficiency of fraud detection in the government sector.

Based on the above discussion, the author is interested in conducting a study titled "The Influence of Forensic Accounting Skills on Fraud Detection with Self-Efficacy as an Intervening Variable and CAATs as a Moderating Variable: A Study on the Investigation Units at BPK RI." This research differs from previous studies as it explores the role of forensic accounting skills in fraud detection in the public sector, which is often overlooked in earlier research. The findings are expected to provide significant contributions to combating fraud in the public sector and to enhance the quality of audits conducted by BPK RI in particular.

LITERATURE ANALYSIS

Agency Theory

According to Jansen & Meckling (1976), agency theory can be viewed as a contractual concept between two or more parties. In this theory, there are two parties: the principal and the agent. The principal delegates decision-making authority to the agent, who is authorized to perform specific tasks according to the agreed-upon contract. Agency theory points to an asymmetric relationship between the principal and the agent, where the agent acts in their own interest rather than in the principal's interest.

Eisenhardt (1989) explains that agency theory is based on three fundamental assumptions: assumptions about human nature, organization, and information. The human nature assumption posits that individuals are self-interested and have limited foresight. The organizational assumption addresses issues like organizational conflict, efficiency as a measure of productivity, and asymmetries in the principal-agent relationship. The information assumption views information as a commodity that can be traded. Jansen & Meckling (1976) highlight that such asymmetry can lead to issues like conflicts of interest, where agents may pursue personal interests that diverge from the principal's goals, potentially resulting in actions like asset theft or financial statement manipulation for personal gain. Principals can mitigate fraud through regular audits by internal and external auditors as part of corporate governance practices.

Fraud

Fraud, as defined by the ACFE, involves intentional acts to gain personal benefit or harm others through deceitful means. It includes activities like deception, corruption, and misuse of trust, aiming to deceive or harm for personal or illicit gain. According to Zimbelman & et al. (2014), fraud lacks a fixed definition and encompasses various methods

used to gain advantage through misrepresentation, including financial statement manipulation, asset theft, and embezzlement. These fraudulent acts can involve individuals or collusion among multiple parties.

The ACFE classifies fraud into three categories: asset misappropriation, corruption, and fraudulent statements, known collectively as the "fraud tree." Asset misappropriation involves the illegal taking of assets, such as cash theft or inventory embezzlement. Corruption includes using one's influence in business for unlawful gains, often involving bribery or abuse of authority. Financial statement fraud entails manipulating financial data to mislead stakeholders, impacting decision-making processes.

Fraud detection is crucial in identifying theft, conversion, and concealment, especially when preventive measures fail. In the complex modern business environment, the risk of fraud increases with technological advancements and intricate financial transactions. Effective fraud detection requires understanding various fraud schemes to identify and disrupt them, thereby minimizing their impact and duration.

Self-Efficacy

Bandura (1977) describes self-efficacy as an individual's belief in their ability to perform tasks and achieve goals, influenced by personal experiences, direct observation, verbal persuasion, and physiological and emotional conditions. It plays a crucial role in motivating behavior and achieving success. Philips & Gully (1997) highlight that self-efficacy varies among individuals, affecting their behavior and ability to accomplish tasks. Alwisol (2009) distinguishes self-efficacy from aspiration, noting that while aspiration is about ideal goals, self-efficacy is about one's assessment of their abilities.

Bandura outlines four sources of self-efficacy: mastery experience, where successes boost and failures diminish self-efficacy; vicarious experience, where observing others' successes or failures influences self-efficacy based on similarity; verbal persuasion, where positive feedback from credible sources enhances self-efficacy; and somatic and emotional state, where stress can lower and a positive state can increase self-efficacy. These factors collectively shape an individual's confidence in their abilities to achieve desired outcomes.

Accounting Forensic Skills

Forensic accounting is the application of accounting disciplines broadly, including audits related to legal issues for resolution both inside and outside of court. It integrates accounting, auditing, and legal principles to address financial disputes scientifically and in compliance with judicial standards (Tuanakotta, 2010; Oyedokun, 2015). Essential skills for forensic accountants include technical and analytical abilities for analyzing complex

financial data and identifying fraudulent activities, effective communication skills for clearly presenting findings to stakeholders, and psycho-social skills for understanding the behavior of fraudsters and interpreting their actions (Chukwu et al., 2019; Al Natour et al., 2023).

Moreover, a strong foundation in accounting and auditing is crucial, as it enables forensic accountants to detect financial discrepancies and assess whether fraud has occurred (Ozkul, in Chukwu et al., 2019). This involves a comprehensive understanding of accounting principles, standards, and auditing techniques to effectively perform their role in financial investigations (Al Natour et al., 2023).

Computer Assisted Audit Techniques and Tools

The application of Computer-Assisted Audit Techniques (CAATs) is highly relevant today due to increasing data complexity. CAATs, which involve using computer programs and software for audit procedures and tasks, are essential for testing controls, data analysis, and anomaly detection (Temesgen et al., 2005). According to Sayana (2003), CAATs enable auditors to examine 100 percent of transactions of interest quickly, even with large data volumes, unlike manual methods. The Professional Standards for Public Accountants (SPAP) emphasizes the need for computerized audit techniques to enhance auditor performance and improve the effectiveness and efficiency of fraud detection. Section 327 of SA (PSA No. 59) also highlights the importance of adequate controls over CAATs to ensure audit integrity and effectiveness, requiring careful planning and evaluation by auditors to ensure efficient and effective audit procedures.

Bhasin (2013) explains that a forensic auditor needs specialized knowledge of fraud detection techniques, as well as patience and an analytical mindset. An analytical mindset allows a forensic auditor to interpret numbers and understand the substance of a given situation. Messmer (2004) also notes that successful forensic accountants must possess strong analytical skills. However, contrary to previous research, Al Natour et al. (2023) found that technical and analytical skills as part of forensic accounting competencies do not significantly influence auditors' self-efficacy.

H1: Technical and analytical skills have a positive impact on auditors' self-efficacy

Bandura (1977) explains that self-efficacy reflects confidence in one's ability to effectively convey complex information and adapt communication styles to different clients. Nelson & Randel (2016) add that auditors with high self-efficacy can organize audit tasks, delegate responsibilities, and lead teams towards the completion of audit assignments. Muterera (2024) highlights that understanding self-efficacy in interpersonal communication can guide initiatives aimed at improving client relationships and teamwork, which are critical for successful audit engagements. Al Natour et al. (2023) found a

significant impact of effective communication skills on auditors' self-efficacy. However, Valerica (2018) points out that the effect of communication on self-efficacy is not always significant, with personality traits playing a significant role in influencing interpersonal communication skills and self-efficacy levels. Individuals with a disposition towards helplessness may exhibit lower self-efficacy yet still demonstrate communication skills.

H2: Effective communication skills have a positive impact on auditors' self-efficacy

Al Natour et al. (2023) found that psycho-social skills have a significant impact on auditors' self-efficacy. These skills enable forensic auditors to communicate effectively, build relationships with clients and other stakeholders, and detect subtle cues that may indicate fraudulent behavior. Additionally, Chukwu et al. (2019) explain that psycho-social skills help forensic accountants understand the mindset of fraudsters and assist in analyzing and interpreting their actions and negligence. However, Kristensen et al. (2023) argue that psycho-social skills do not always have a significant impact on self-efficacy, emphasizing that focusing on core skills relevant to the task is more important than psycho-social skills.

H3: Psycho-social skills have a positive impact on auditors' self-efficacy

Ozkul and Pamuc, as cited in Chukwa et al. (2019), state that bookkeeping is referred to as the "language of the company," which implies that forensic accountants need to have strong accounting and auditing skills. With these skills, an auditor is expected to perform their tasks more effectively. Al Natour et al. (2023) found that accounting and auditing skills significantly impact auditors' self-efficacy.

H4: Accounting and auditing skills have an impact on auditors' self-efficacy

Dewi et al. (2023) found that professional skepticism and auditor's self-efficacy play a crucial role in determining whether fraud in financial statements can be uncovered. Higher levels of professional skepticism and auditor's self-efficacy enhance the auditor's ability to detect fraud in financial reports. Additionally, Al Natour et al. (2023) found that auditor self-efficacy has a significant impact on fraud detection. Similarly, Saputra et al. (2021) reported that self-efficacy positively and significantly influences fraud detection. However, Haris et al. (2022) found that self-efficacy does not strengthen the effects of professional skepticism and whistleblowing on the auditor's ability to detect fraud, nor does it weaken the impact of workload on fraud detection capabilities.

H5: Auditor self-efficacy has a positive impact on fraud detection

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H5: Auditor self-efficacy has a positive impact on fraud detection

Adeyanju & Adenikinju (2023) found that components of Computer-Assisted Audit Techniques (CAAT), including audit software, audit command language, embedded audit software, and audit command language, significantly influence fraud detection. Additionally, Al Natour et al. (2023) also found that CAAT has a significant impact on fraud detection. In contrast, Sari & Musyarofah (2020) concluded that audit tools do not have a significant effect on an auditor's ability to detect fraud indications.

H5: CAATs has a positive impact on fraud detection

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H6: CAATs has a positive impact on fraud detection

Meredith et al. (as cited in Al Natour et al., 2023) found that Computer-Assisted Audit Techniques (CAAT) can enhance the positive relationship between an auditor's self-efficacy and fraud detection. Al Natour et al. (2023) also concluded that CAAT has a significant impact on fraud detection, improving the efficiency and effectiveness of audit tasks. CAAT can help identify discrepancies or unusual transactions that might be missed in manual audits, with features like specialized algorithms and artificial intelligence recognizing patterns of fraud based on historical data and trends. In contrast, Dian et al. (2024) reported that the use of CAAT does not affect how auditors use heuristics, suggesting that heuristics remain a primary factor in decision-making, despite CAAT assisting with data analysis.

H7: CAATs strengthens the relationship between auditor's self-efficacy and fraud detection

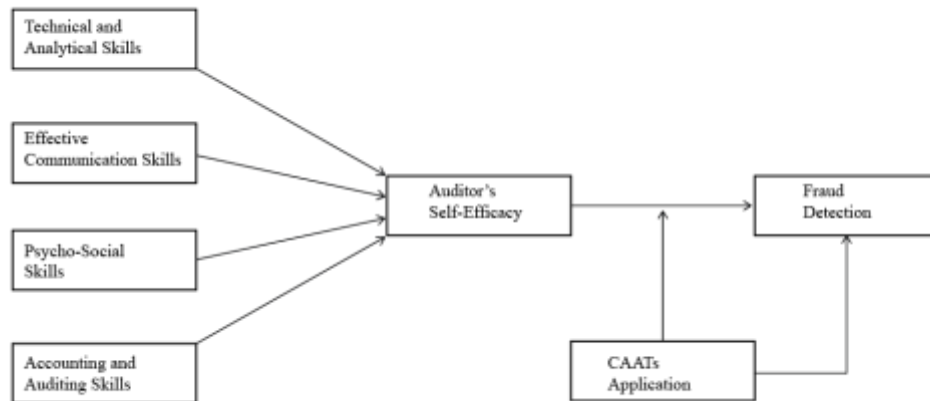


Figure 1. Theoretical Framework

METHODOLOGY

The research method used in this study is quantitative. This study aims to explore the interactions between independent, intervening, moderating, and dependent variables. It examines the extent to which forensic accounting skills influence fraud detection through auditor self-efficacy. Additionally, the study investigates how Computer-Assisted Audit Techniques (CAAT) affect fraud detection and the relationship between auditor self-efficacy and fraud detection.

The data source for this study is primary data. A questionnaire was distributed to investigative auditors in the Main Investigation Audit Unit within the Indonesian Supreme Audit Agency (BPK RI). According to Peraturan BPK No. 1 of 2019, the Main Investigation Audit Unit (Auditorat Utama Investigasi) is a division responsible for conducting investigative audits of state financial management and accountability, calculating state/regional losses, and providing expert testimony.

The population in this study includes investigative auditors at the Audit Board of the Republic of Indonesia. The specific unit responsible for conducting investigative audits at BPK is the Main Investigation Audit Unit (Auditorat Utama Investigasi), which consists of the Central Government Financial Investigation Audit Unit (Auditorat Investigasi Keuangan Negara Pusat), the Regional Government Financial Investigation Audit Unit (Audiotrat Utama Investigasi Keuangan Daerah), and the Separated National/Regional Financial Investigation Audit Unit (Auditorat Investigasi Keuangan Negara/Daerah yang Dipisahkan). Within these three audit units, there are 120 auditors who have previously conducted investigative audits. In this study, the entire population is involved as the sample. This study will collect primary data using Google Forms to obtain responses from participants. A Likert

scale with values ranging from 1 to 4 will be used for rating the questionnaire, where respondents provide negative feedback (minimum) with a score of 1 and positive feedback (maximum) with a score of 4.

The data analysis methods used in this study are multiple linear regression and classical assumption tests using SPSS software. Multiple linear regression is used to determine how the dependent variable relates to the independent variables, intervening variables, and moderating variables. The regression equation in this study can be expressed as follows:

$$SE = \alpha + \beta_1TA + \beta_2EC + \beta_3PS + \beta_4AA + \epsilon_1 \text{ (Regression Model 1)}$$

$$FD = \alpha + \beta_5SE + \beta_6CAATT + \epsilon_2 \text{ (Regression Model 2)}$$

$$FD = \alpha + \beta_7SE + \beta_8CAATT + \beta_9(SE*CAATT) + \epsilon_3 \text{ (Regression Model 3)}$$

RESEARCH AND RESULTS

Out of the 120 questionnaires distributed to all auditors in the Main Investigation Audit Office, 104 were returned. However, among the 104 received questionnaires, some responses were incomplete and/or anomalous. Consequently, the number of questionnaires that could be processed is 86. Among the 86 respondents, 64 (74.42%) are male and 22 (25.58%) are female, indicating a predominance of male respondents. The majority hold a Master's degree (63.95%), while 36.05% have a Bachelor's degree or equivalent, with no respondents holding a Doctorate. Most respondents have an educational background in Accounting (67.44%), followed by other disciplines such as Economics (2.33%), Management (3.49%), and various other fields (26.74%). Experience-wise, 48.84% have worked at BPK for over 15 years, while 38.37% have between 10 to 15 years. Additionally, all respondents have some experience in investigative auditing, with 54.65% having over 5 years of such experience, 26.74% having less than 3 years, and 18.60% having 3 to 5 years of experience.

Descriptive Statistics Analysis

Table 1 Descriptive Statistical Analysis Test Results

Variable	N	Minimum	Maximum	Mean	Std. Dev.
TA	86	2	4	3,539	0,543
EC	86	2	4	3,667	0,488
PS	86	2	4	3,601	0,494
AA	86	2	4	3,551	0,553

SE	86	1	4	3,424	0,584
CAATT	86	1	4	3,449	0,608
FD	86	1	4	3,394	0,626

Source: Data processed (SPSS)

The values for technical and analytical skills, communication skills, psycho-social skills, accounting and auditing skills, self-efficacy, CAATT (risk assessment), and fraud detection were derived from a series of questions answered by respondents. For technical and analytical skills, the average score was 3.539 with a standard deviation of 0.543, indicating general agreement with a homogeneous spread. Communication skills had an average of 3.667 and a standard deviation of 0.488, also reflecting general agreement and a good spread. Psycho-social skills averaged 3.601 with a standard deviation of 0.494, suggesting similar trends. Accounting and auditing skills had an average score of 3.551 with a standard deviation of 0.553, showing broad agreement. Self-efficacy had an average of 3.424 with a standard deviation of 0.584, indicating general agreement with a well-distributed data spread. CAATT had an average score of 3.449 and a standard deviation of 0.608, suggesting agreement and a homogeneous distribution. Finally, fraud detection averaged 3.394 with a standard deviation of 0.626, reflecting general agreement and a well-distributed data set.

Validation Tests

Table 2 Validation Tests

Variable	Indicator	Pearson Correlation (r hitung)	R table	Explanation
Technical and Analytical Skills (TA)	TA.1	0,692	0,177	Valid
	TA.2	0,546	0,177	Valid
	TA.3	0,683	0,177	Valid
	TA.4	0,716	0,177	Valid
	TA.5	0,795	0,177	Valid
	TA.6	0,718	0,177	Valid
Effective Communication Skills (EC)	EC.1	0,709	0,177	Valid
	EC.2	0,802	0,177	Valid
	EC.3	0,738	0,177	Valid
	EC.4	0,776	0,177	Valid

	EC.5	0,658	0,177	Valid
	EC.6	0,720	0,177	Valid
Psycho-Social Skills (PS)	PS.1	0,768	0,177	Valid
	PS.2	0,658	0,177	Valid
	PS.3	0,744	0,177	Valid
	PS.4	0,842	0,177	Valid
	PS.5	0,738	0,177	Valid
	PS.6	0,803	0,177	Valid
Accounting and Auditing Skills (AA)	AA.1	0,745	0,177	Valid
	AA.2	0,796	0,177	Valid
	AA.3	0,810	0,177	Valid
	AA.4	0,615	0,177	Valid
	AA.5	0,733	0,177	Valid
	AA.6	0,821	0,177	Valid
	AA.7	0,760	0,177	Valid
	AA.8	0,699	0,177	Valid
Self-Efficacy (SE)	SE.1	0,799	0,177	Valid
	SE.2	0,858	0,177	Valid
	SE.3	0,810	0,177	Valid
	SE.4	0,850	0,177	Valid
	SE.5	0,811	0,177	Valid
	SE.6	0,803	0,177	Valid
	SE.7	0,846	0,177	Valid
CAATT	CAATT.1	0,829	0,177	Valid
	CAATT.2	0,871	0,177	Valid
	CAATT.3	0,837	0,177	Valid
	CAATT.4	0,783	0,177	Valid
	CAATT.5	0,804	0,177	Valid
	CAATT.6	0,817	0,177	Valid
	CAATT.7	0,797	0,177	Valid
Fraud Detection (FD)	FD.1	0,674	0,177	Valid
	FD.2	0,801	0,177	Valid
	FD.3	0,812	0,177	Valid
	FD.4	0,854	0,177	Valid

	FD.5	0,815	0,177	Valid
	FD.6	0,722	0,177	Valid
	FD.7	0,656	0,177	Valid

Source: Data processed (SPSS)

This study employed validity testing to assess the validity of the questionnaires used. A questionnaire is considered valid if its questions adequately measure the intended variables. A variable is deemed valid if its calculated r-value is positive and greater than the critical r-value. The results of the validity test for all statements used and accepted from 86 respondents show that all statements are valid, as presented in the table above.

Reliability Tests

This study conducted a reliability test to assess the consistency of the scale. After validating each statement, reliability analysis was performed to determine if the instrument consistently measures the same constructs in repeated measurements. Reliability refers to the extent to which observed variables measure true values and are free from error. The reliability test used Cronbach's Alpha, with a criterion of ≥ 0.60 for the coefficient. The results of the reliability testing are shown in the table below.

Table 3 Reliability Tests

No.	Variable	Items	N	Cronbach's Alpha	Explan- ation
1	TA	6	86	0,773	Reliable
2	EC	6	86	0,829	Reliable
3	PS	6	86	0,854	Reliable
4	AA	8	86	0,883	Reliable
5	SE	7	86	0,920	Reliable
6	CAATT	7	86	0,918	Reliable
7	FD	7	86	0,876	Reliable

Source: Data processed (SPSS)

Classical Assumption Tests

The purpose of the normality test is to determine if the variables in the regression model are normally distributed. This test uses the non-parametric Kolmogorov-Smirnov (K-S) statistic. Data is considered normally distributed if the significance value is greater than

5%. If the significance value is less than 5%, the data is deemed not normally distributed. The results of the normality test for the two multiple regressions used in this study are as follows:

Table 4 Normality Test Result

		Unstandardized Residual	Explanation
Regression 1	N	86	
	Asymp Sig. (2-tailed)	0,085	Normal
Regression 2	N	86	
	Asymp Sig. (2-tailed)	0,650	Normal

Source: Data processed (SPSS)

Based on the normality test results in the table above, it is found that the residuals of both the first and second regression models have Sig. 2-tailed values greater than 0.05. For the first regression equation, the Asymp Sig. 2-tailed value is 0.085, while for the second regression equation, it is 0.650. As the Asymp Sig. 2-tailed values in the Kolmogorov-Smirnov normality test are above 0.05, it indicates that the data is normally distributed and can proceed to hypothesis testing in the next stage.:

Coefficient of Determination Test (R-squared)

This study conducted a coefficient of determination test to assess the suitability of the regression model. This test reveals how well the independent variables explain the dependent variable. A high coefficient of determination indicates a strong ability of the independent variables to explain the dependent variable. The table below shows the R and R² values for both the first and second regression models.

Table 5 Coefficient of Determination Test Result

Regression Model	R ²
Multiple Regression Model 1	0,576
Multiple Regression Model 2	0,503
Multiple Regression Model 3	0,505

Source: Data processed (SPSS)

In the table above, the R^2 value for the first multiple regression model is 0.576, indicating that technical and analytical skills (TA), effective communication (EC), psycho-social factors (PS), and accounting and auditing (AA) contribute 57.6% to self-efficacy (SE), with the remaining 42.4% attributed to other variables not included in the study. For the second regression model, the R^2 value before moderation by CAATT is 0.503, showing that SE and CAATT contribute 50.3%, with 49.7% from other variables. Lastly, the R^2 value for the third regression model after moderation by CAATT is 0.505, indicating that SE and CAATT together contribute 50.5%, with 49.5% from other variables.

F-Test (Simultaneous)

The F-statistic test is used to assess the simultaneous effect of independent variables on the dependent variable. This test compares the significance level of the F-statistic from the results with the significance level used in the study.

Table 3 F-Test (Simultaneous) Test Result

		Sum of Squares	df	Mean Square	F	Sig.
Multiple Regression 1	Regression	565,845	4	141,461	29,913	0,000
	Residual	383.051	81	4,729		
Multiple Regression 2	Regression	469,137	2	234,568	42,074	0,000
	Residual	462,735	83	5,575		
Multiple Regression 3	Regression	470,427	3	156,809	27,865	0,000
	Residual	461,445	82	5,627		

Source: Data processed (SPSS)

In multiple regression model 1, the table shows an F-significance value of 0.000, which is less than 0.05, and an F-calculated value of 29.913, which exceeds the F-table value of 2.48. This indicates that, with 95% confidence, all variables together have a significant effect on self-efficacy. In multiple regression model 2, the F-significance value is also 0.000, less than 0.05, and the F-calculated value is 42.074, greater than the F-table value of 3.11, showing a significant effect on fraud detection. In multiple regression model 3, the F-significance value is again 0.000, with an F-calculated value of 27.865, higher than the F-table value of 2.72, indicating that all variables and their interaction effect significantly impact fraud detection with 95% confidence.

T-Test (Partial)

This study conducted t-tests for partial analysis to examine the effect of each independent variable on the dependent variable. Using a multiple regression model with a 5% significance level, the t-tests assess the individual impact of independent variables on the dependent variable, as well as the effect of the dependent variable after moderation. The decision-making basis for these t-tests is outlined as follows.

Table 4 T-Test (Partial) Test Results on Self-Efficacy Multiple Regression 1

Model		Beta	Sig.
(Constant)		-2.113	0,434
TA	(+)	0,207	0,039
EC	(-)	-0,185	0,129
PS	(+)	0,497	0,000
AA	(+)	0,325	0,006

Source: Data processed (SPSS)

Table 8 T-Test (Partial) Test Results on Fraud Detection Multiple Regression 2

Model		Beta	Sig.
(Constant)		5,194	2,040
SE	(+)	0,405	0,000
CAATT	(+)	0,387	0,000

Source: Data processed (SPSS)

Table 8 T-Test (Partial) Test Results on Fraud Detection Multiple Regression 3

Model		Beta	Sig.
(Constant)		13,469	0,441
SE*CAATT	(+)	0,645	0,633

Source: Data processed (SPSS)

The table reveals the significance of the direct effects of forensic accounting skills on fraud detection. In regression model 1, the constant value of -2.113 indicates the self-efficacy score in the absence of the variables. Technical and analytical skills positively affect self-efficacy (beta of 0.207, significance 0.039), while effective communication skills have a non-

significant negative effect (beta of -0.185, significance 0.129). Psycho-social and accounting and auditing skills positively and significantly impact self-efficacy (betas of 0.497 and 0.325, respectively, both with significance of 0.000). In regression model 2, the constant value of 5.194 shows the fraud detection score without self-efficacy and CAATT. Both self-efficacy and CAATT significantly positively affect fraud detection (betas of 0.405 and 0.387, respectively, with significance values of 0.000). The interaction between self-efficacy and CAATT has a coefficient of 0.645 but is not significant (0.633), suggesting it strengthens but does not significantly impact fraud detection. Interactions involving effective communication, psycho-social, and accounting and auditing skills with fraud detection are not significant, while the interaction of technical and analytical skills is significant.

DISCUSSION

The Influence of Technical and Analytical Skills on Auditor's Self-Efficacy

The regression analysis found a significant positive impact of technical and analytical skills on self-efficacy. This finding aligns with Messemer (2024), who notes that successful forensic accountants need strong analytical abilities. El Natour et al. (2023) also indicate that auditors with technical and analytical skills can handle complex data analysis and identify financial discrepancies, thereby enhancing their self-efficacy. In the Auditorat Utama Investigasi, auditors are expected to have high analytical skills for complex loss assessments and rule violations analysis, as well as technical skills obtained through specialized training for effective fraud investigation.

The Influence of Effective Communication Skills on Auditor's Self-Efficacy

The testing found that effective communication does not significantly impact auditors' self-efficacy, contrary to Muterera (2024), which suggests that interpersonal communication insights can enhance initiative and teamwork, and Al Natour et al. (2023), which indicates a significant positive effect of effective communication on self-efficacy. This discrepancy may be due to factors such as communication perception and organizational context. In Auditorat Utama Investigasi, most audits are conducted by small teams of three to four members, potentially shaping perspectives on effective communication. Verenica (2019) also notes that communication does not always positively affect self-efficacy, with personality traits significantly influencing interpersonal communication skills and self-efficacy levels.

The Influence of Psycho-Social Skills on Auditor's Self-Efficacy

Testing showed that psycho-social skills significantly positively impact auditors' self-efficacy, aligning with Al Natour et al. (2023), which indicates that these skills are crucial for effective forensic audits and detecting subtle fraud indicators. This result is consistent with Chukwu et al. (2019), which highlights that psycho-social skills help forensic accountants understand fraudsters' mindsets and analyze their actions. In Auditorat Utama Investigasi, auditors are expected not only to excel in cognitive abilities but also to manage emotions and interpersonal relationships effectively. Despite frequent indications of fraud in examined entities, maintaining good interpersonal relationships is essential for ensuring information openness and facilitating the audit process.

The Influence of Accounting and Audit Skills on Auditor's Self-Efficacy

Testing provided evidence that accounting and auditing skills significantly positively impact self-efficacy. This aligns with Al Natour et al. (2023), which found that these skills significantly affect auditors' self-efficacy. High levels of accounting and auditing skills enhance auditors' confidence in their ability to perform tasks due to a strong foundation in understanding financial performance, which aids in detecting fraud and recording errors. At Auditorat Utama Investigasi, most examiners have accounting backgrounds, highlighting the emphasis on accounting and auditing skills. High proficiency in these areas boosts auditors' confidence in executing their duties effectively.

The Influence of Auditor's Self Efficacy on Fraud Detection

The testing results indicate that an auditor's self-efficacy significantly positively impacts fraud detection. This finding aligns with Dewi et al. (2023), which highlighted that professional skepticism and self-efficacy are crucial in detecting financial statement fraud. Similarly, Al Natour et al. (2023) found that auditors' self-efficacy significantly affects fraud detection. Auditors with high self-efficacy are more confident in their audit decisions, including identifying potential fraud, and believe their skills and knowledge aid in assessing situations and spotting fraud indicators.

The Influence of CAATT on Fraud Detection

The regression analysis found a significant positive impact of CAATT (Computer-Assisted Audit Techniques) on fraud detection, aligning with Adeyanju & Adenikinju (2023) and Al Natour et al. (2023), who also reported its significant effect. CAATT helps auditors handle complex data and enhances their analytical capabilities, leading to better fraud detection. At Auditorat Utama Investigasi, technology is extensively used, with digital

records and specialized audit applications facilitating information sharing and recording. Additionally, a certified forensic lab has been developed to aid in uncovering fraud archived digitally.

The Influence of CAATT on Moderating Effect of Auditor's Self-Efficacy on Fraud Detection

Regression analysis of model 3 showed that CAATT (Computer-Assisted Audit Techniques) does not significantly strengthen the effect of self-efficacy on fraud detection, contrary to Meredith et al. (as cited in Al Natour et al., 2023) and Al Natour et al. (2023), which both found CAATT to enhance this relationship. This lack of moderation by CAATT may be due to the complexity of fraud detection, which relies not only on tools and techniques but also on auditors' expertise and experience in analyzing information, identifying suspicious patterns, and connecting audit evidence. Dian et al. (2024) further noted that CAATT does not impact auditors' use of heuristics, meaning auditors continue to rely on heuristics for decision-making, thus making self-efficacy in detecting fraud independent of CAATT.

CONCLUSION AND RECOMMENDATIONS

This study aimed to assess the impact of forensic accounting skills on auditor self-efficacy and the role of self-efficacy in fraud detection, considering CAATT (Computer-Assisted Audit Techniques) as a moderating variable. The results show that technical and analytical skills, psychosocial skills, and accounting and auditing skills positively and significantly affect auditor self-efficacy, aligning with previous research. However, effective communication skills did not significantly impact self-efficacy, which may be attributed to differences in perception and organizational context. Moreover, while self-efficacy significantly enhances fraud detection and CAATT positively affects fraud detection, CAATT did not significantly strengthen the relationship between self-efficacy and fraud detection.

For the Supreme Audit Agency (Badan Pemeriksa Keuangan), it is recommended to focus on enhancing forensic skills that significantly impact self-efficacy, such as technical and analytical skills, psychosocial skills, and accounting and auditing skills. Providing targeted training in these areas can improve auditors' self-efficacy and their ability to detect fraud. Additionally, the agency should continue to invest in and upgrade digital forensic laboratories and other supportive infrastructure, recognizing the importance of CAATT in fraud detection. Despite CAATT's limited moderating effect, its role in handling complex data remains crucial, and thus, further development in forensic technology and methodologies is advised.

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