

THE INFLUENCE OF COMPETENCE AND USE OF CAAT ON FRAUD DETECTION WITH PROFESSIONAL SKEPTICISM AS AN INTERVENING VARIABLE

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Abstract

This study aims to examine the influence of auditor competence and the use of Computer-Assisted Audit Techniques (CAAT) on fraud detection, with professional skepticism as an intervening variable. The increasing prevalence of fraud cases both globally and in Indonesia underscores the importance of evaluating the effectiveness of auditors, particularly in relation to their technical capabilities, technological adaptability, and professional critical attitudes. This research adopts a quantitative approach using a survey method, collecting data from 59 external auditors working at Public Accounting Firms (PAFs). The data were analyzed using Partial Least Squares - Structural Equation Modeling (PLS-SEM) with the SmartPLS 4.1 application. The results indicate that neither competence nor the use of CAAT has a direct significant effect on fraud detection. However, both variables positively and significantly influence professional skepticism. On the other hand, professional skepticism does not have a significant effect on fraud detection and does not mediate the relationship between competence or CAAT and fraud detection. These findings suggest that technical skills and the use of audit technology must be supported by institutional backing, auditor authority, and an ethical working environment to contribute effectively to fraud detection. This study offers a theoretical contribution by developing a fraud detection model based on attribution theory, and practical implications for enhancing audit training and organizational structures.

Keywords: Fraud Detection, Auditor Competence, CAAT, Professional Skepticism, External Auditors.

INTRODUCTION

Fraud is a global issue that continues to be a major concern in the world of accounting and auditing (Sari et al., 2020). Fraud not only causes large financial losses, but also damages the integrity of the financial reporting system and stakeholder trust. Based on the Association of Certified Fraud Examiners (ACFE) report, companies around the world on average lose about 5% of their revenue each year due to fraud (Ifana & Reskino, 2023). Major scandals in various countries reflect how important the role of auditors is in detecting and preventing fraud. In Indonesia, based on the ICW report in 2021, there were 444 corruption cases with a total state loss of IDR 18.6 trillion (Sari & Andrian, 2023).

The Association of Certified Fraud Examiners (ACFE) Global report in 2020 noted that there were 2,504 fraud cases spread across 125 countries. Of these, around 86% were cases of asset embezzlement. Interestingly, only about 4% of the total cases were uncovered through the examination of external auditors, placing them in the fourth position as the party that most often detects fraud. The average loss discovered through external audits was USD 150,000, with the duration of the fraud lasting around 24 months. This shows that the role of external auditors in detecting fraud is still not optimal, despite having significant potential in identifying fraudulent practices both actively and passively (Khairunnisa et al., 2025).

The Enron Corporation scandal in the United States, which involved systematic manipulation of financial statements through specialised entities, led to billions of dollars in losses and the collapse

of Arthur Andersen Public Accounting Firm (Aulia et al., 2024). In Europe, the Wirecard AG case in Germany also demonstrated weak oversight of EUR 1.9 billion worth of fictitious reporting (Siregar, 2023). These two cases reveal that even though audits have been carried out, fraud still occurs due to

the lack of scepticism and professional acumen of auditors. In Indonesia, similar cases have also occurred. The PT Garuda Indonesia Tbk scandal in 2018 showed the weakness of fraud detection when auditors failed to reveal fictitious revenue worth USD 239 million (Setiawan et al., 2024). The Jiwasraya and Asabri Insurance cases also strengthen the evidence that large-scale fraud can occur when the competence and ethics of the auditor profession are not applied optimally (Christian et al., 2023). In facing these challenges, auditor competence is a fundamental element in the audit process. Competence reflects a combination of technical knowledge, professional skills, work experience, and the ability to apply auditing standards (Putri et al., 2024). Competent auditors are able to recognise unusual patterns, critically evaluate audit evidence, and draw conclusions based on appropriate procedures (Yuwono & Sarwoko, 2025). Several studies (Sari & Andrian, 2023; Noch et al., 2022) found that auditor competence has a positive and significant effect on fraud detection, because auditors with high competence are more sensitive to fraud risks and have the technical ability to identify them.

In line with the development of information technology, the use of Computer Assisted Audit Techniques (CAAT) has become an important aspect in improving audit effectiveness and efficiency (Adeyanju & Adenikinju, 2023). CAAT helps auditors analyse large amounts of data, identify suspicious patterns, and examine transactions more systematically. However, the successful use of CAAT in detecting fraud is highly dependent on the auditor's ability to critically interpret the technology output (Najmuddin & Pamungkas, 2021). Auditors who rely solely on the technical features of CAAT without a cautious and sceptical attitude are at risk of missing indications of fraud hidden in data anomalies. Several studies, such as those conducted by Muna & Meutia (2024) and Febrianingsih, (2023) show that the use of Computer Assisted Audit Techniques (CAAT) has a positive and significant effect on fraud detection. This is because auditors who have good analytical skills and technological literacy tend to be more effective in utilising CAAT to search data, identify anomalies, and detect patterns that indicate fraud more accurately and efficiently.

In this study, professional scepticism acts as an intervening variable that mediates the relationship between competence and the use of CAAT on fraud detection. Auditors who are competent and technically skilled in using CAAT are not necessarily able to detect fraud effectively if they are not accompanied by high scepticism. Conversely, when competence and CAAT are combined with professional scepticism, auditors will be more thorough in verifying information generated from audit technology and not immediately accept system results without in-depth evaluation. In other words, professional scepticism is a cognitive bridge that allows auditors to make optimal use of their competence and audit technology in the fraud risk assessment process. It encourages auditors to continuously question the validity of data, explore the possibility of bias or fabrication in audit evidence, and evaluate each transaction more critically. Without scepticism, auditors may fall into the trap of over-reliance on the system, which ultimately reduces the effectiveness of fraud detection. Research by Noch et al. (2022) supports this view by showing that professional skepticism strengthens the relationship between competence and fraud detection, as well as the relationship between competence and the effective use of CAAT. However, previous studies have delivered mixed results, depending on the audit environment, organisational pressures, and auditor experience.

For this reason, this study uses Heider (1958) Attribution Theory as a conceptual foundation. This theory explains that individual behaviour is determined by interpretations of the causes of behaviour, whether they come from internal factors such as attitudes, skills, and professional values, or external factors such as management pressure or organisational conditions. In this case, professional scepticism is considered a reflection of the internal attributions of an auditor who has an awareness of his professional responsibilities and uses them to strengthen the assessment of

audit findings. The novelty of this study is the simultaneous integration of three important variables in detecting fraud, namely auditor competence, the use of CAAT, and professional scepticism as an intervening variable. This study offers a conceptual model that has not been studied simultaneously, especially in the context of medium-sized public accounting firms (KAP) in Indonesia. The results of this study are expected to provide theoretical contributions to the audit literature and practical implications in the development of technology-based auditor training and professional ethics.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Attribution theory

Attribution Theory, introduced by Heider (1958), explains that individual behaviour is the result of a combination of internal and external forces. Internal factors include personal characteristics such as attitudes, abilities and beliefs; while external factors include environmental or situational conditions that influence a person's behaviour. The advanced attribution model developed by Weiner (1992) makes it clear that the antecedents of behaviour consist of two main sources are personal factors, such as knowledge, skills, and attitudes, as well as and Environmental factors, such as social norms, organisational support and access to information. Both factors influence the consequence of achievement, which includes attitudes, skills and efforts that lead to certain results or performance. In the context of this research, Attribution Theory is used as a basis for understanding how auditors respond to professional demands in detecting fraud, based on internal and external sources of causation (attribution).

Auditor competence reflects internal factors in the form of knowledge, abilities, and skills possessed by auditors to detect fraud. The higher the competence, the greater the auditor's tendency to actively respond to fraud risk. The use of CAAT (Computer Assisted Audit Techniques) represents an external factor, namely information technology support as an organisational facility that allows auditors to conduct data analysis more efficiently and in depth. Professional scepticism acts as an internal aptitude or attitude that becomes the auditor's cognitive response to the combination of competence and technology utilisation. Auditors who are competent and have access to advanced audit technology will exhibit a higher level of scepticism when faced with questionable evidence. Fraud detection becomes a consequence or outcome, which is the final achievement of the combination of personal and environmental factors that influence audit behaviour. Based on Attribution Theory, auditor behaviour in detecting fraud is not only influenced by technical ability and technology availability, but also by how auditors attribute these factors internally through professional skepticism. Therefore, professional scepticism acts as a psychological bridge (intervening variable) that explains the relationship between competence and the use of CAAT on fraud detection.

Fraud detection

Fraud detection is the process of recognising, identifying, and uncovering fraudulent activities that are carried out intentionally and lead to the presentation of misleading information in financial statements. This detection not only demands the technical skills of auditors, but also requires an in-depth understanding of fraud schemes, early indicators (red flags), and interpretative abilities of anomalies found in financial documents and data (Fullerton & Durtschi, 2004). Fraud detection can be done through Effectively designed internal controls, Active monitoring of fraud symptoms, Use of reactive approaches (e.g. reports from third parties), and Use of proactive approaches such as surprise audits, data mining, and financial ratio analysis.

According to the ACFE report (2020), most fraud is revealed through tips off or anonymous reports, while the role of external auditors in detecting fraud is still relatively low (around 4%). Fraud is also often detected not from direct evidence, but through indirect symptoms, such as changes in the perpetrator's lifestyle, suspicious documents, or transaction anomalies (Singleton & Singleton, 2010). Important Factors in Fraud Detection:

- a. Understanding the factors that cause fraud such as pressure, opportunity, and rationalisation (fraud triangle).
- b. The ability to recognise red flags, including individual behaviour, internal control weaknesses and irregularities in accounting records.
- c. Mastery of detection methods, both general (e.g. observation and data analysis) and specific (e.g. detecting financial statement manipulation or asset misappropriation).
- d. Effectiveness of internal controls, such as proactive internal audit, job rotation, and reporting facilities such as complaints hotlines.

Competence

Auditor competence is an ability that includes the knowledge, technical skills, experience, professional behaviour, and education required to carry out audit tasks effectively. Competence is a fundamental aspect in supporting the success of auditors in identifying and exposing fraud. According to various literature:

- a. Competence is obtained through formal education, training, work experience, certification, and involvement in professional activities such as seminars or symposia (Yudin et al., 2021; AAPII, 2014).
- b. Competencies include several dimensions, including basic, technical, personal, and tool competencies as well as knowledge, behavioural skills, and technical abilities (Razali et al., 2025).
- c. State Financial Audit Standards (SPKN) and government internal audit standards also stipulate that auditors must have collective competence in four main aspects: educational background and experience, understanding of the audited entity, communication skills, and technical expertise according to the audit object (BPK, 2017; AAPII, 2014).

Auditor competence plays a very important role in increasing the effectiveness of fraud detection, because auditors are competent are be more sensitive to anomalies or early signs of fraud (red flags), able to assess and interpret audit data more critically and can carry out investigative and analytical procedures appropriately and professionally (Al Natour et al., 2023). High competence also supports stronger professional scepticism. Auditors with expertise and confidence in their knowledge will tend to be more careful, critical, and not easily believe in information without sufficient evidence. Implication are government internal auditors play a strategic role in preventing and detecting fraud. Therefore, competency development through continuing education, training, and audit experience is very important Tuanakotta (2013) and The higher the level of auditor competence, the greater the ability to find potential fraud quickly and accurately.

Computer Assisted Audit Techniques

Computer Assisted Audit Techniques is a set of information technology-based tools used to assist auditors in conducting audits, especially in analysing data, testing internal controls, verifying compliance, and detecting fraud more efficiently and effectively (Daoud et al., 2021; Noghabi et al., 2021). Key Benefits of CAAT in Auditing:

- a. Reduce audit costs, by improving the efficiency of the audit process.
- b. Improve audit quality, through thorough and rapid testing of data.
- c. Improve effectiveness and productivity, by processing large volumes of data in a short period of time.
- d. Enhance fraud detection capabilities, by identifying anomalies or irregularities based on algorithms, in accordance with standards such as SAS No. 99 and the Sarbanes-Oxley Act.

CAAT is used in the form of software such as ACL, IDEA, or spreadsheet audit tools, which help auditors analyse data systematically (Rachmad et al., 2023). Despite its benefits, CAAT adoption rates remain low in some countries, including Jordan and Nigeria, due to several factors: High cost of software licences, Specialised training needs for auditors, Complexity of client information systems dan Lack of technical support and organisational infrastructure (Daoud et al., 2021) The TOE

Framework as a Technology Adoption Evaluation Approach. The TOE framework is used to explain CAAT adoption in an organisational context. The three main dimensions in this framework are:

- a. Technology - Technology availability and readiness
- b. Organisation - Resources, structure and technology adoption readiness
- c. Environment - External factors such as market pressure and customer technology (Daoud et al., 2021).

Professional scepticism

Professional scepticism is a core element of the audit process that reflects an attitude of caution, healthy doubt, and a tendency not to readily accept information without sufficient evidence. In SA Section 230 PSA No. 4 and SPKN PSP 100, professional scepticism is defined as an attitude that requires auditors to continuously question audit evidence and evaluate it critically (AAPI, 2014; BPK, 2017). Dimensions and Definition of Professional Scepticism. Scepticism has long been an important topic in the audit literature:

- a. Hogarth & Einhorn (1992) refer to scepticism as sensitivity to negative evidence that allows auditors to be more responsive to the risk of misstatement.
- b. Shaub (1996) equates scepticism with suspicion. He emphasises that sceptical auditors do not believe easily and always relate information to their professional context and experience.
- c. Nelson (2009) emphasises that scepticism is reflected in audit decisions that reflect a high risk awareness of the untruth of a statement.
- d. Hurtt (2007) defines scepticism as a psychological trait consisting of six characteristics:
 - 1) Questioning mind
 - 2) Suspension of judgement
 - 3) Search for knowledge
 - 4) Interpersonal understanding
 - 5) Independence or autonomy
 - 6) Self-esteem

Based on these characteristics, the Hurtt Professional Skepticism Scale (HPSS) was developed to quantitatively measure the level of professional scepticism and has been used in various empirical studies. Scepticism serves as the foundation for assessing audit evidence, determining audit risk, and identifying indications of fraud.

HYPOTHESIS FORMULATION

The effect of competence on fraud detection

Attribution Theory developed by Fritz Heider (1958) explains that individuals understand behaviour by identifying causes that come from two main sources, namely internal factors (such as ability, effort, and attitude) and external factors (such as environmental or situational pressures). Heider states that a person's behaviour is the result of a conscious choice based on internal forces that can be controlled, or influenced by external forces that are beyond the individual's control. According to Weiner (1992), a person's success in achieving a goal is strongly influenced by attributions to ability, effort, and strategy. In the context of auditing, auditor competence is a form of internal attribution that reflects professional ability and readiness to carry out tasks, including detecting fraud. Competence includes knowledge, technical skills, and experience gained through education and training (Bailey et al., 2010). Competent auditors tend to be more sensitive to fraud symptoms because they have a strong understanding of systems, procedures, and proper audit practices. These auditors are also able to expand their search for information and identify relevant evidence to detect indications of fraud. Research supports that auditors who have high competence are better able to distinguish relevant and irrelevant information in the audit process (Bonner & Lewis, 1990; Hammersley 2011; Nelson, 2009). In addition, according to Tversky and Kahneman in Carpenter et al. (2002), auditors who have attended fraud detection training will find it easier to

remember examples of fraud cases, so that they can more quickly recognise suspicious patterns. The ease of accessing this knowledge strengthens the auditor's ability to effectively recognise fraud risks. Thus, attribution theory can explain that competence as an internal factor has an influence on auditor behaviour in detecting fraud. Competent auditors have higher abilities and sensitivity to indications of fraud, and are motivated to perform more thorough and in-depth audit procedures. These results are also supported by various previous studies (Putra, 2017; Amalia et al., 2021; Natalia & Latrini, 2021).

H1: Competence has a positive effect on fraud detection.

The effect of competence on fraud detection

According to Singleton & Singleton (2010), fraud detection is the process of identifying and discovering fraudulent activities early through various audit methods. Fraud discovery is generally reactive, often triggered by intuition, suspicion, or discrepancies in accounting records. In the perspective of attribution theory (Heider, 1958), success in detecting fraud can be understood as the result of a combination of internal factors (auditor ability and effort) and external factors (environmental support and working conditions that support investigations). Weiner (1992) stated that environmental factor - as part of external attribution - have an important role in shaping individual behaviour. In this context, the use of Computer Assisted Audit Techniques (CAAT) can be considered as an external factor that strengthens the effectiveness of auditors in carrying out their duties. CAAT is an information technology- based tool designed to assist auditors in analysing, verifying and detecting anomalies or indications of fraud in complex financial data. CAAT has the ability to filter and analyse large amounts of data efficiently, perform automated transaction due diligence and identify suspicious patterns in financial statements. With these capabilities, CAAT increases the speed and accuracy of auditors in detecting fraud, and simplifies complex audit processes (Jaber & Wadi, 2018). Along with the increasing complexity of audits, the use of CAAT is very important, especially for internal auditors who face limited resources but are required to produce more effective and accurate audits (Bahtiar et al., 2017). Research from Najmuddin & Pamungkas (2021) and Jaber & Wadi (2018) shows that the use of CAAT significantly strengthens auditor performance in the audit process and enables earlier fraud detection. Other studies have also found that CAAT improves audit opinion reliability, cost efficiency, and supports transparency and audit quality. Empirical findings from Saputra & Mulya (2021), Fauzi et al. (2022), and Fung (2022) consistently state that the use of CAAT has a positive impact on the auditor's ability to detect fraud.

H2: The use of CAAT has a positive effect on fraud detection.

The Effect of Professional Scepticism on Fraud Detection

Based on Attribution Theory (Heider, 1958), individual behaviour, including auditors, is influenced by internal factors such as attitude, knowledge, and experience. In this context, professional scepticism is an internal auditor attitude characterised by a questioning mind, alert to evidence, and critical in assessing audit information. This attitude is the result of internal attribution of the auditor's professional responsibility in ensuring the reliability of financial statements. Auditors who have a high level of scepticism tend not to immediately accept information without adequate proof, and will expand audit procedures to uncover possible fraud. Thus, professional scepticism is an important factor in increasing the effectiveness of fraud detection. Various previous studies, such as by Fullerton & Durtschi (2004) and Natalia & Latrini (2021), prove that the higher the level of professional scepticism of auditors, the greater their ability to detect signs of fraud.

H3: Professional scepticism has a positive effect on fraud detection.

The Effect of Competence on Professional Scepticism

Based on Attribution Theory proposed by Heider (1958), individual behaviour is the result of a combination of internal factors (such as ability, knowledge, and effort) and external factors

(environment and situation). In the context of auditing, professional scepticism is an internal auditor attitude that arises from the cognitive process, where auditors use their abilities and knowledge to critically assess information. Competence, which includes professional knowledge, skills and attitudes, is one of the main internal factors that influence the formation of auditor scepticism. Auditors who have a high level of competence tend to be better able to understand audit complexity, recognise indications of fraud, and question audit evidence in depth. Previous research supports this relationship. Fullerton & Durtschi (2004) found that auditors who have professional knowledge and certification show a higher level of scepticism. Nelson (2009) also confirms that auditors' understanding of fraud patterns increases scepticism. The model from Hurtt et al. (2013) states that competence is an antecedent factor in the formation of professional scepticism. Other empirical studies such as Suraida (2005), Kusumawati & Syamsuddin (2018), and Putra (2017) also prove that competence has a positive effect on the level of professional scepticism of auditors.

H4: Competence has a positive effect on professional scepticism.

The Effect of CAAT Use on Professional Scepticism

In Attribution Theory (Heider, 1958), individual behaviour is influenced by a combination of internal factors (such as abilities and attitudes) and external factors (such as work environment and available tools). In the context of auditing, the use of Computer Assisted Audit Techniques (CAAT) is a form of external attribution-that is, the technology-based environmental support provided to auditors to support their performance. With CAAT, auditors are facilitated to analyse data efficiently, trace anomalies, and evaluate audit evidence in greater depth. Access to this technology encourages auditors to be more careful and critical, thus strengthening professional scepticism. Auditors who are accustomed to using CAAT will tend to have a higher sensitivity to red flags and not easily accept information without adequate evidence. Research by Jaber & Wadi (2018) and Najmuddin & Pamungkas (2021) shows that the use of CAAT contributes to improved auditor evaluation quality and a more sceptical professional attitude. The use of audit technology also encourages auditors to thoroughly verify information and question the evidence generated by the client's accounting information system. Thus, the use of CAAT as an external factor facilitates the formation of auditors' professional scepticism through the experience of interaction with the system, increasing rigour, and strengthening the evaluative process in the audit.

H5: The use of CAAT has a positive effect on professional scepticism.

The Effect of Competence on Fraud Detection through Professional Scepticism

Within the framework of Attribution Theory (Heider, 1958), individual attitudes and behaviour are influenced by internal factors such as knowledge, skills and experience. Professional scepticism is the auditor's evaluative attitude formed from his beliefs and knowledge. Auditors with high competence - which includes the dimensions of knowledge, skills, and attitudes - are more likely to be sceptical when facing audit evidence, thus increasing their ability to detect fraud. Previous research shows that auditor competence is positively correlated with scepticism (Kusumawati & Syamsuddin, 2018; Bonner & Lewis, 1990), and that professional scepticism strengthens the effectiveness of auditors in uncovering indications of fraud (Nelson, 2009; Fullerton & Durtschi, 2004). Sceptical auditors will be more sensitive to red flags and not easily accept information without proof. Furthermore, the combination of competence and scepticism provides the depth of auditors' professional judgement, which is needed to objectively and carefully identify fraud patterns (Carpenter et al., 2002; Amalia et al., 2021). Thus, professional scepticism acts as a mediating mechanism that strengthens the relationship between competence and fraud detection.

H6: Competence has a positive effect on fraud detection through professional scepticism.

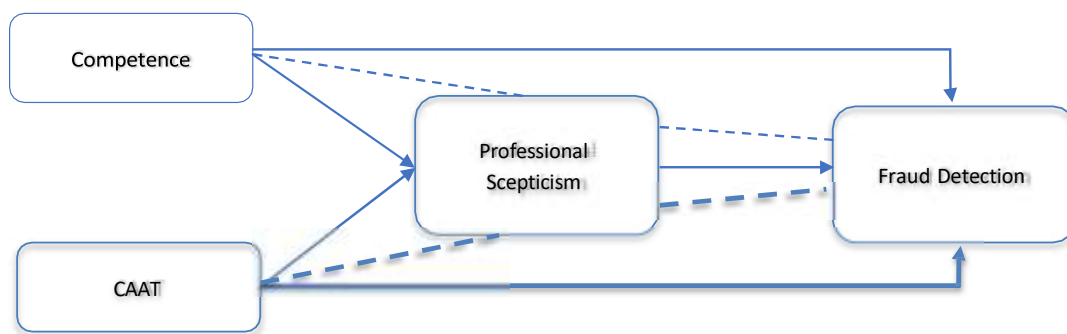
The Effect of CAAT Use on Fraud Detection through Professional Scepticism

Computer Assisted Audit Techniques (CAAT) allow auditors to perform more extensive, efficient, and accurate data analyses than traditional audit methods. CAAT makes it easier for

auditors to identify suspicious transaction patterns in large data populations, which are often invisible in manual testing (Lim, 2021). According to research by Fadilah et al. (2019) and Bahtiar et al. (2017), auditors' ability to use audit technology such as CAAT significantly increases the effectiveness of fraud detection, especially when auditors are sceptical in evaluating evidence. CAAT supports the expansion of audit procedures, which is the hallmark of auditors with professional scepticism-an attitude that questions and critically evaluates information. Previous studies such as Fullerton & Durtschi (2004) and Said & Munandar (2018) show that auditors who have a sceptical attitude are more sensitive to red flags and more effective in identifying potential fraud. Thus, professional scepticism acts as an intermediary that strengthens the effect of using CAAT on fraud detection.

H7: The use of CAAT has a positive effect on fraud detection through professional scepticism

Based on the literature review and previous research, the conceptual framework is depicted as in Figure 1:



RESEARCH METHODS

1. Research Approach and Type

This research uses a quantitative approach with descriptive, causal, and explanatory analysis methods. The purpose of this approach is to determine the direct and indirect effects between the independent variables of competence and caat on the dependent variable Fraud detection, with professional scepticism as a mediating variable. Data analysis was conducted using the Structural Equation Modelling - Partial Least Square (SEM-PLS) method. This method was chosen because it is able to analyse the relationship between latent constructs simultaneously, both the measurement model (outer model) and the structural model (inner model). The analysis was carried out with the help of SmartPLS 4.0 software.

2. Population and Sample

The population in this study were auditors who worked at the Public Accounting Firm, totalling 59 people. The sampling method used is the *non-probability* sampling method, which is a sampling technique that does not provide equal opportunities for members of the population to be selected as samples (Sugiyono, 2018: 142). Saturated sampling technique is a sampling technique that is carried out if the entire population is used as a sample.

3. Data Collection

Primary data was collected using a questionnaire structured in the form of a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire was distributed via Google Form which was distributed directly to respondents via the WhatsApp application. To maintain validity, the researcher contacted the respondents personally and provided a

brief explanation of the research objectives. The following is part of the operational definition of variables for *Audit Judgement* and *Auditor Experience* which is clarified, simplified, and arranged in a systematic format in accordance with academic writing standards. I also added a description of the indicators in the form of a concise table so that it is easy to understand and use in the preparation of research instruments:

Table 1. Respondent Criteria

Description	Criteria	Frequency	Total
Gender	Male	32	59
	Women	27	
Age	<30	14	59
	30-35	8	
	36-40	10	
	>40	27	
Last Education	D3	4	59
	S1	47	
	S2	8	
Length of Service	1-5 Years	26	59
	6-10 Years	5	
	11-15 Years	8	

4. Operational Definition of Variables

1. Fraud Detection (Y)

Fraud detection is the auditor's desire to expand the search for information which is marked by the sensitivity and sensitivity of the auditor to recognise the symptoms of fraud (Fullerton & Durtschi, 2004). The fraud detection measure used is based on the concept put forward by (Fullerton & Durtschi, 2004).

2. Competence (X1)

According to (Bailey *et al*, 2010) competence is the ability required by auditors to perform certain tasks professionally according to standards. The competency measurement in this study was developed from the competency standards of government internal auditors (*Government Internal Audit Competency Framework*), as well as competency measures developed by (Alias *et al*, 2019; Gramling & Ramamoorti, 2003).

3. Computer Assisted Audit Techniques (X2)

Computer Assisted Audit Techniques is an important tool in fraud detection and can be used to identify areas of risk. CAAT is a computer-based program that helps auditors analyse large amounts of financial data, making it easier to identify patterns or anomalies that could indicate fraud . The CAAT variable can be measured using statement indicators that refer to research (Daoud *et al* :, 2021).

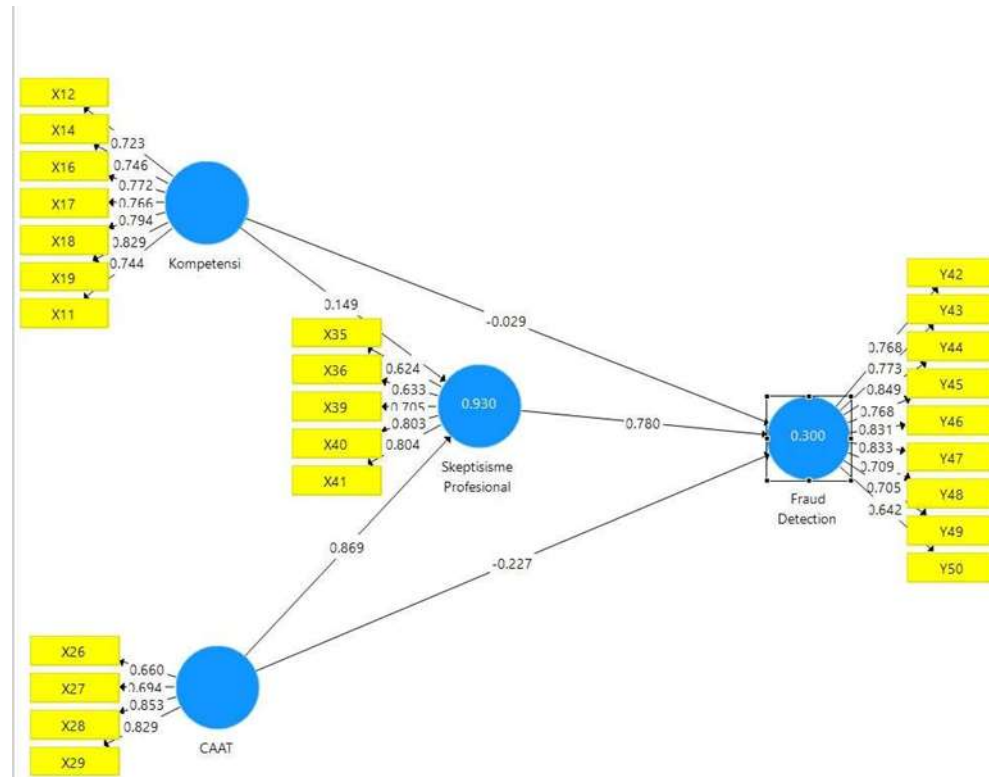
4. Professional scepticism

Professional scepticism is an attitude that always questions and critically evaluates audit evidence (SA *Section* 230 PSA No. 04 paragraphs 6 and 8) and SPKN section PSP 100 (general standards). The variable measure of professional *scepticism* uses the HPSS (*Hurt professional scepticism scale*) measure developed by (Hurt, 2010).

RESULTS AND DISCUSSION

A. Convergent Validity Test

Convergent validity is used to assess the extent to which indicators in one construct are interrelated and able to accurately represent the variable in question. This validity test is carried out through the outer loading value, where the indicator is declared valid if it has a value of more than 0.70. However, in exploratory research, values between 0.50 and 0.70 are still tolerable (Rahadi, 2023).



In this study, most of the outer loading values of the indicators on the variables of Competence, CAAT, Professional Skepticism, and Fraud Detection are above 0.70. This shows that each indicator has good strength in representing its latent construct. Thus, all variables in the model have met the criteria of convergent validity, so it is feasible to proceed to the next stage of model analysis...

B. Discriminant Validity Test

Discriminant validity aims to assess whether a construct has distinctiveness and does not overlap with other constructs. In this study, discriminant validity was tested through two approaches:

1. Fornell-Larcker Criteria

Constructs are considered discriminantly valid if the root value of the Average Variance Extracted (AVE) for each construct is greater than the correlation value between other constructs. Based on Table 2, the root value of AVE of each construct (Competence, CAAT, Professional Scepticism, and Fraud Detection) is proven to be higher than the correlation between constructs, which indicates that each construct has adequate discrimination.

CAAT	Fraud Detection	Competence	Professional
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Scepticims				
CAAT	0.764			
Fraud Detection	0.502	0.767		
Competence	0.593	0.354	0.768	
Professional scepticism	0.590	0.543	0.664	0.718

2. Average Variance Extracted (AVE)

Discriminant validity is also confirmed through the AVE value, where the minimum accepted value is 0.50. The AVE values of the four constructs in this study are above 0.50 (see Table 3), which confirms that most of the indicator variance can be explained by their respective constructs.

AVE	
Fraud Detection	0.588
Competence	0.590
CAAT	0.583
Professional scepticism	0.516

C. Reliability Test

Construct reliability is measured through three main indicators, namely Composite Reliability (CR), Cronbach's Alpha, and Rho A. Each is considered adequate if it has a value of more than 0.70. Based on the results of data processing (Table 3), all constructs in this study-Competence, CAAT, Professional Scepticism, and Fraud Detection have a CR, Cronbach's Alpha, and Rho A value above 0.70. This indicates that this research instrument is consistent and reliable in accurately measuring each construct (Rahadi, 2023).

Cronbach's Alpha	Rho_A	Composite Reliability	
Fraud Detection	0.912	0.922	0.927
Competence	0.884	0.885	0.910
CAAT	0.761	0.790	0.847
Professional Scepticism	0.768	0.795	0.840

D. Inner Model Evaluation (Structural Model)

Evaluation of the inner model is carried out to assess how much the independent constructs are able to explain the dependent variable, which is measured using the R-Square (R^2) value. According to Rahadi (2023), the guidelines for interpreting the R^2 value are as follow 0.67 = strong, 0.33 = medium/moderate, and 0.19 = weak. The results of data processing in this study show:

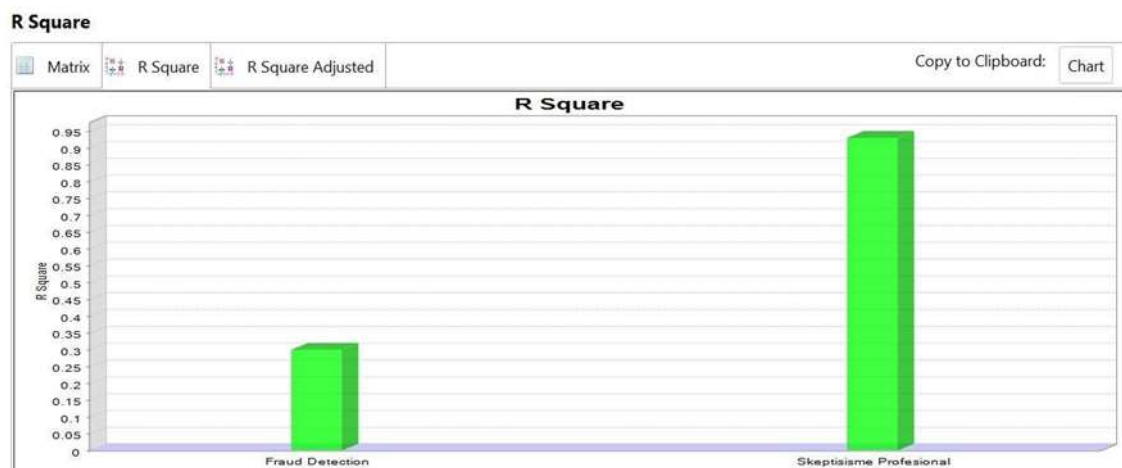
- 1) The R^2 value for Professional Scepticism is 0.930, which means that 93.0% of the variability of Professional Scepticism can be explained by the Competence and CAAT variables. This value is in the very strong category, indicating that the model has a

high predictive power of auditor scepticism.

- 2) The R^2 value for Fraud Detection is 0.300, meaning that 30.0% of the variance in Fraud Detection is explained by Professional Scepticism, Competence, and CAAT. This value is included in the medium category, which indicates that the model has sufficient predictive ability for fraud detection.

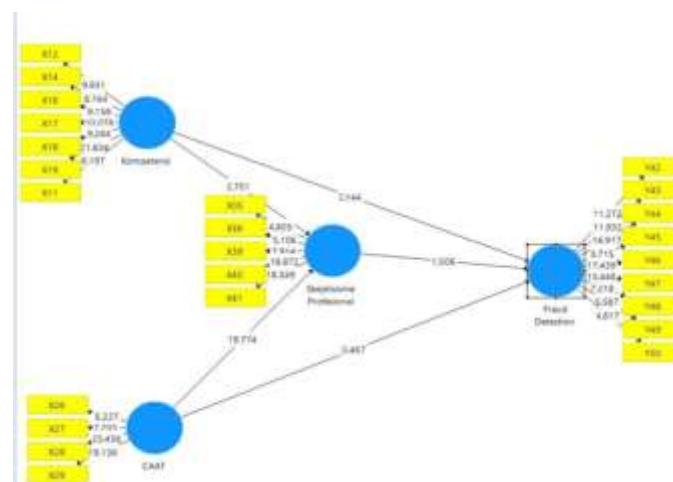
Thus, the structural model in this study shows a good level of predictability and can be relied upon for further hypothesis testing. Thus, the structural model in this study has good predictive ability and is suitable for hypothesis testing.

	R Square	R Square Adjusted
Fraud Detection	0.300	0.261
Skeptisme Profesional	0.930	0.927



E. Hypothesis Test (Path Coefficient)

Hypothesis testing in this study uses the bootstrapping method with the help of the SmartPLS application. Testing is carried out on direct effects and indirect effects between constructs, based on the t-statistic value and p-value. Significance is determined based on the p-value limit ≤ 0.05 . Hypothesis testing is conducted to determine whether the relationship between variables in the model is statistically significant. This test uses the t-statistic value from the bootstrapping results by considering direct effects and indirect effects



	Path	<i>TV Value</i>	<i>Pvalues</i>
H 1	Competence -> Fraud Detection	0.144	0.886
H 2	Competence -> Professional Scepticism	2.071	0.007
H 3	CAAT -> Fraud Detection	0.467	0.640
H 4	CAAT -> Professional Scepticism	19.774	0.000
H 5	Professional Scepticism -> Fraud Detection	1.506	0.133
	Path	<i>TV Value</i>	<i>Pvalues</i>
H 6	Competence -> Professional Scepticism -> Fraud Detection	1.443	0.150
H 7	CAAT -> Professional Scepticism -> Fraud Detection	1.399	0.162

1. Direct Effects

A. The Effect of Competence on Fraud Detection (H1) - Not Significant

The results showed that competence has no significant direct effect on fraud detection ($t = 0.144$; $p = 0.886$). Within the framework of attribution theory (Heider, 1958), competence is an internal factor that should encourage auditors to act professionally in identifying fraud. However, these results suggest that technical competence alone is not enough to effectively detect fraud. This can be explained by:

- 1) Auditor position in the organisational structure. Most respondents have <10 years of experience (26 people), and are most likely at the executive level, not strategic decision makers. As a result, although competent, they do not have full authority in concluding or following up fraud.
- 2) Job pressure factors at KAP. Auditors are often faced with audit time constraints, pressure from client management, and a focus on procedural compliance rather than in-depth investigations.
- 3) Lack of integration between competence and critical attitude. A competent auditor needs to have sensitivity to fraud, but if it is not accompanied by skepticism and organisational support, then his competence will not result in optimal fraud detection.

Research by Yin et al. (2020) concluded that competence will only have a significant impact on fraud detection if supported by a strong reporting system and an ethical work environment. Monica et al. (2024) also emphasised the importance of integrity and institutional support as a complement to the competence of individual auditors.

B. Effect of CAAT on Fraud Detection (H2) - Not Significant

The next finding shows that the use of CAAT has no direct effect on fraud detection ($t = 0.467$; $p = 0.640$). Whereas in external attribution theory (Weiner, 1992), CAAT as an environmental tool should support auditor effectiveness. Several factors may explain this insignificance:

- 1) Technology adoption challenges by senior auditors. Some respondents are >40 years old (27 people) and have >15 years of experience (20 people), which may experience difficulties in adapting to new technology or using CAAT only as a formality.
- 2) The use of CAAT is not always in the context of fraud detection. Some auditors may more often utilise CAAT for general due diligence or standard analyses, rather than for complex data-driven investigations.
- 3) Lack of advanced training and integration of CAAT with the client's audit system, so that even though CAAT is used, the results have not been able to strengthen the fraud detection process.

Research by Daoud et al. (2021) and Saputra et al. (2024) support that the effectiveness of CAAT is only optimal when used strategically and with thorough training.

C. The Effect of Competence on Professional Scepticism (H4) – Significant

The results of the analysis show that competence has a significant effect on professional scepticism ($t = 2.071$; $p = 0.007$). This finding is in accordance with the attribution theory framework, where knowledge and skills as internal factors shape auditors' beliefs in being sceptical.

- 1) Competent auditors have a strong logical and technical base to assess evidence in depth, understand discrepancies, and question information presented by clients.
- 2) Respondents with a bachelor's degree (79.7%) and more than 5 years of audit involvement indicated that competence is a cognitive foundation in the evaluation process.

Hurt et al. (2013) state that professional scepticism is formed by a combination of knowledge, experience, and evaluative attitudes, which are in line with the dimensions of competence.

D. Effect of CAAT on Professional Scepticism (H5) - Highly Significant

CAAT has a highly significant effect on professional scepticism ($t = 19.774$; $p = 0.000$), which indicates that modern audit technology supports auditors in thinking critically and being alert to potential fraud. Explanation:

- 1) CAAT allows auditors to access big data, find anomalies, and verify cross transactions between systems - triggering questions and in-depth evaluation of the data.
- 2) This external attribution in the form of technological support triggers a more critical attitude of internal auditors, in accordance with attribution theory.
- 3) Auditors who actively use CAAT are more aware of the potential for data manipulation and are therefore naturally more sceptical.

This result is reinforced by Najmuddin & Pamungkas (2021) and Jaber & Wadi (2018) who concluded that the use of CAAT encourages the development of a sharper and more thorough professional attitude.

E. The Effect of Professional Scepticism on Fraud Detection (H3) – Not Significant

The results show that professional scepticism has no significant direct effect on fraud detection ($t = 1.506$; $p = 0.133$). This is surprising, given that scepticism is the foundation of a quality audit. Some explanations:

- 1) Most of the auditors in the sample are not final decision makers (the majority have <10 years of work experience), so despite being sceptical, they do not always have the authority to comprehensively explore or follow up on findings.
- 2) Structural pressure from KAP management and clients can reduce the courage to

voice suspicions.

- 3) Professional scepticism needs to be actualised through the support of an audit system and work culture that supports professional autonomy. Research by Natalia & Latrini (2021) and Said & Munandar (2018) emphasises that scepticism will be effective if auditors have an independent and pressure-free work environment.

2. Indirect Effects

A. Mediation of Professional Scepticism on Competence → Fraud

Detection Relationship (H6) - Not Significant

This mediation path is not significant ($t = 1.443$; $p = 0.150$), meaning that although competence increases scepticism, this attitude has not been able to bridge the effect of competence on fraud detection. Auditors may be sceptical but lack the authority or support to dig further. This suggests that competence must be combined with structural flexibility and an active investigative role in order to produce real fraud detection.

B. Mediation of Professional Scepticism on CAAT → Fraud

Detection Relationship (H7) - Not Significant

This path was also not significant ($t = 1.399$; $p = 0.162$). Although CAAT increases auditor scepticism, it is not enough to lead directly to fraud detection. This reinforces the idea that CAATs, while powerful as tools, are ineffective when used only as technical routines, without any investigative initiative coming from the auditor or organisational drive. Competence and CAAT are proven to shape scepticism, but neither directly nor through scepticism results in fraud detection. The significant failures in H1, H2, H3, H6, and H7 indicate that the fraud detection process is complex and depends on the synergy between internal (skills, attitudes) and external (systemic support, audit structure, and organisational culture) factors. These results provide evidence that fraud detection requires a multidimensional approach-competence and technological tools are only effective when support by authority, independence, and a work climate that encourages fraud reporting and follow-up.

CONCLUSION

This study aims to analyse the effect of competence and the use of *Computer Assisted Audit Techniques* (CAAT) on the auditor's ability to detect *fraud (fraud detection)*, by considering the role of professional skepticism as an intervening variable. By involving 59 respondents from auditors of the Public Accounting Firm (KAP), the results of this study provide several important findings, both theoretically and practically.

1. Competence has no direct effect on fraud detection

Although competence is theoretically considered an internal factor underlying the ability of auditors to detect fraud (based on attribution theory), this result shows that technical competence alone is not enough to encourage auditors to actively identify fraud, especially when auditors are in an executive position or face limited authority and structural pressure in the KAP environment.

2. The use of CAAT has no direct effect on fraud detection.

This finding indicates that audit technology does not automatically improve fraud detection if it is not balanced with technological literacy, in-depth training, and audit system integration. Senior auditors who dominate the respondents may use CAAT in a limited and non-strategic manner in the context of fraud investigation.

3. Competence and CAAT have a positive effect on professional scepticism.

Auditors who have the knowledge, audit skills, and use of audit technology tend to have a strong sceptical attitude. This means that competence and exposure to CAAT encourage critical thinking, prudence, and the urge to explore audit evidence in depth.

4. Professional scepticism has no significant effect on fraud detection. Auditor scepticism has not been sufficiently translated into real fraud detection actions, due to structural restrictions, client pressure, and lack of institutional support. High scepticism will not be effective if auditors do not have the authority or space to develop audit procedures independently.
5. There is no significant mediating effect of professional scepticism.
 In both the competence → scepticism → fraud detection and CAAT → scepticism → fraud detection pathways, the results did not show a significant mediating effect. This confirms that professional scepticism, although important, is not enough to be an effective bridge if it is not accompanied by a work ecosystem that supports systematic fraud detection.

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