

## Artificial Intelligence Adoption and Audit Quality: A Mediating Model of Performance Expectancy in East Java's Public Accounting Firms

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### Abstract

*This study aim to investigates the impact of Artificial Intelligence (AI) adoption on audit quality, specifically examining the mediating role of performance expectancy within Public Accounting Firms in East Java. Utilizing a quantitative approach, data from 140 auditors were analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS). Results indicate that AI adoption positively affects both audit quality and performance expectancy. Furthermore, performance expectancy significantly impacts audit quality and mediates the relationship between AI adoption and audit quality. This research highlights the critical role of auditors' performance expectations in realizing AI's benefits, offering insights for fostering effective AI integration to enhance audit practices. This research offers empirical evidence from the underrepresented Indonesian context, providing a nuanced understanding of how performance expectancy mediates the AI-audit quality link. It contributes valuable insights for strategic AI implementation in public accounting firms and lays groundwork for future behavioral studies in auditing..*

**Keywords:** AI Adoption; Audit Quality; Performance Expectancy; Public Accounting Firms; East Java

### Abstrak

Penelitian ini bertujuan untuk menguji pengaruh Artificial Intelligence (AI) adoption pada Audit Quality dan peran Performance Expectancy sebagai mediasi. Objek penelitian ini adalah karyawan di Kantor Akuntan Publik Jawa Timur. Penelitian ini menggunakan pendekatan kuantitatif dengan mengumpulkan data dari 140 auditor. Data yang terkumpul selanjutnya dianalisis dengan Structural Equation Modeling-Partial Least Squares (SEM-PLS). Temuan penelitian menunjukkan bahwa Artificial Intelligence (AI) adoption mampu meningkatkan Audit Quality dan Performance Expectancy. Lebih lanjut, Performance Expectancy secara signifikan memengaruhi Audit Quality dan memediasi hubungan antara AI Adoption dan Audit Quality. Penelitian ini berkontribusi dalam membuktikan peran krusial Adopsi AI terhadap peningkatan kualitas audit. Penelitian ini juga berkontribusi dalam memberikan rekomendasi agar KAP dapat mengintegrasikan AI secara efektif guna meningkatkan kualitas audit KAP.

**Keywords:** AI Adoption; Audit Quality; Performance Expectancy; Public Accounting Firms; East Java



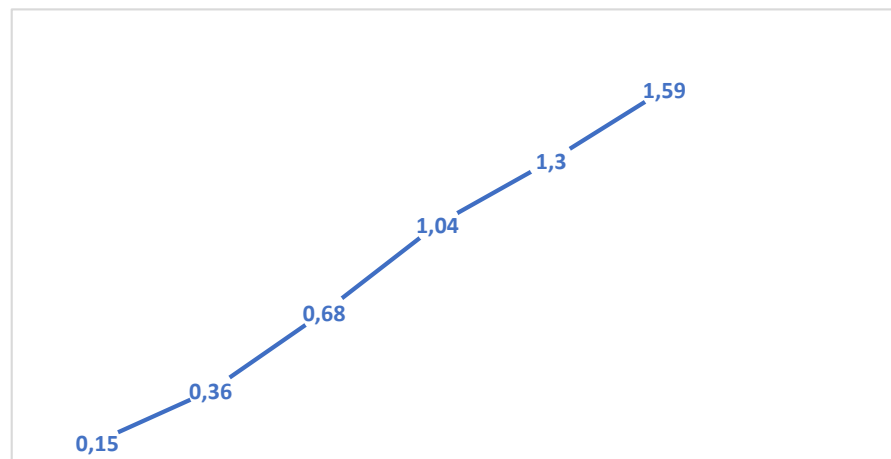
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## INTRODUCTION

The global landscape is undergoing a profound digital transformation, characterized by the pervasive integration of Artificial Intelligence (AI) across various sectors. Garuda (2025) reported a rise number of AI users has surged dramatically from 0.15 million in 2020 to a projected 1.59 million in 2025 in Indonesia alone (Figure 1). This remarkable growth underscores the increasing accessibility and user-friendliness of AI-powered applications, such as ChatGPT and Gemini, which offer intuitive interfaces that do not necessitate specialized technical knowledge. As these tools become integral to daily digital life, their widespread

adoption across diverse audiences, including students, professionals, and the general public, is naturally accelerating (Rahman et al., 2024).



**Figure 1.** AI Users in Indonesia (In Million)  
(Source: Garuda, 2025)

This rapid proliferation of AI has profoundly influenced the auditing profession, particularly in regions such as East Java. Auditors are increasingly exposed to and adopting AI-powered tools to streamline various stages of the audit process, from initial data preparation and collection to sophisticated analysis and anomaly detection (Hady & Fitria, 2025). This paradigm shift from traditional, manual auditing to a technology-driven approach fundamentally alters audit procedures, promising greater efficiency and accuracy. However, this transformative adoption simultaneously raises critical questions regarding its actual impact on the ultimate audit quality. The extent to which this technological advancement genuinely enhances audit outcomes, especially within specific geographical contexts like East Java, where the pace and nature of AI adoption among public accounting firms may vary, constitutes a significant and pressing problem.

The scholarly discourse on the relationship between AI adoption and audit quality is extensive and revealing a growing body of evidence. Adeoye et al. (2023), Khayoon et al. (2025) Qader & Cek (2024), and Shibli et al. (2024) consistently indicate that AI positively influences audit quality by improving accuracy, reliability, and timely reporting, as well as by assisting in fraud detection and overall audit process efficiency. Furthermore, Rahman et al. (2024) and Tan et al. (2025) confirm a positive linkage between AI adoption by both audit firms and their clients and enhanced audit quality and efficiency. These findings collectively establish the potential benefits of AI in modern auditing.

Despite these promising insights, the literature also highlights nuanced aspects. For instance, Albawwat & Frijat (2021) suggest that while auditors readily perceive assisted AI systems as easy to use, they may underestimate the capabilities of more autonomous systems, indicating that the type of AI and auditors' perceptions significantly influence its perceived contribution. A-Sufy et al. (2023) also noted that while AI positively affects internal audit quality, this relationship is not significantly moderated by cybersecurity risks.

This study is theoretically underpinned by the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). UTAUT is a comprehensive framework designed to predict an individual's intention to use and adopt new information technology, emphasizing factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions. In this research, UTAUT is particularly relevant as it elucidates how auditors' beliefs that AI will improve their job performance (Performance Expectancy) can serve as a crucial psychological conduit. This theoretical lens explains how the mere availability and utilization of AI technology (AI Adoption) can be translated into tangible improvements in professional work, thereby enhancing Audit Quality. By integrating UTAUT,

this study can systematically analyze the cognitive and behavioral factors that drive the successful integration of AI, offering a more nuanced understanding of the human-technology interaction within the contemporary auditing landscape.

Despite the extensive body of literature, a notable research gap persists. Many existing studies on AI in auditing tend to focus on broad global contexts or specific developed economies, or they primarily explore direct relationships without delving deeply into the mediating mechanisms. There is a distinct paucity of empirical research that specifically examines the intricate relationships between AI adoption, performance expectancy, and audit quality within the unique Indonesian context, particularly among Public Accounting Firms in East Java. While Handoko et al. (2025) touched upon performance expectancy as a driver for AI adoption, its specific mediating role between AI adoption and audit quality warrants further investigation.

Therefore, this study aims to bridge this gap by empirically investigating the influence of AI adoption on audit quality, with a particular focus on the mediating role of performance expectancy within Public Accounting Firms in East Java. To achieve this overarching goal, the specific objectives of this research are: (1) To analyze the direct influence of AI adoption on audit quality, (2) To determine the effect of AI adoption on auditors' performance expectancy, (3) To investigate the direct impact of performance expectancy on audit quality, (4) To test the mediating role of performance expectancy in the relationship between AI adoption and audit quality.

Based on the theoretical framework and prior empirical findings, The integration of Artificial Intelligence (AI) tools, such as machine learning and robotic process automation, is widely expected to significantly enhance various aspects of the audit process. These technologies enable auditors to automate repetitive tasks, analyze vast datasets more efficiently, and detect anomalies or fraud with greater accuracy compared to traditional manual methods. This improved capability can lead to a reduction in human error and allows auditors to allocate more time to complex, judgment-based activities, thereby contributing to an overall enhancement in the quality of the audit engagement (Adeoye et al., 2023; Khayoon et al., 2025; Rahman et al., 2024). Therefore, the first hypothesis posits: *H1: AI adoption has a positive effect on audit quality.*

The adoption of new technology is fundamentally driven by the user's perception of its utility. Drawing upon the Unified Theory of Acceptance and Use of Technology (UTAUT), performance expectancy is identified as a key predictor of technology adoption (Venkatesh et al., 2003). As auditors gain exposure to and begin to utilize AI tools in their daily tasks, their direct experience and increased awareness of the benefits—such as simplified complex tasks, reduced workload, and improved ability to meet performance targets—are anticipated to positively shape their expectations regarding AI's capability to enhance their performance. This forms a crucial psychological foundation for continued and effective technology use (Handoko et al., 2025). Thus, the second hypothesis states: *H2: AI adoption has a positive effect on performance expectancy.*

An auditor's belief that AI will genuinely improve their job performance, known as performance expectancy, is a critical factor for the successful integration and effective utilization of new technology. Auditors who possess a high level of performance expectancy are more inclined to fully embrace AI tools and apply them effectively, which subsequently leads to superior audit outcomes. This positive perception not only motivates them to invest time and effort in mastering the technology but also encourages its optimal application, resulting in more accurate risk assessments, enhanced fraud detection, and a more robust overall audit process (Albawwat & Frijat, 2021). Consequently, the third hypothesis proposes: *H3: Performance expectancy has a positive effect on audit quality.*

Building upon the preceding hypotheses, this study posits that the influence of AI adoption on audit quality is not merely a direct relationship but is also significantly mediated

through the auditors' perceptions. Specifically, the adoption of AI tools may not immediately translate into higher audit quality unless auditors firmly believe that these tools are beneficial for their performance. In this context, performance expectancy serves as a vital cognitive link between the presence and utilization of AI technology and its subsequent impact on audit outcomes. An increase in AI adoption is expected to foster a higher performance expectancy among auditors (as suggested by H2), and this elevated expectancy, in turn, is anticipated to directly drive improvements in audit quality (as suggested by H3). This mediating relationship underscores the critical role of user perception and belief in the successful implementation and beneficial realization of technological advancements within the auditing profession (Handoko et al., 2025). Hence, the final hypothesis is: *H4: Performance expectancy mediates the relationship between AI adoption and audit quality.*

This study is expected to make significant contributions to both theoretical understanding and practical application. Theoretically, it will enrich the existing literature on AI adoption and audit quality by providing empirical evidence from the Indonesian context, a region underrepresented in current research. By specifically investigating the mediating role of performance expectancy, the study offers a nuanced understanding of the psychological mechanisms through which AI adoption translates into improved audit outcomes. Practically, the findings will provide valuable insights for Public Accounting Firms in East Java, enabling them to better strategize their AI adoption initiatives by understanding how auditors' perceptions influence the success of technological implementation. This research will also serve as a foundational study for future inquiries into the behavioral aspects of technology adoption within the auditing profession.

## METHOD

This study employed a quantitative explanatory research design to investigate the causal relationships among AI adoption, performance expectancy, and audit quality (Creswell & Creswell, 2017)). This approach was selected to quantitatively test the formulated hypotheses and determine the direct and mediating effects between the variables. The explanatory nature of the study is crucial for elucidating the underlying mechanisms through which AI adoption influences audit quality, thereby contributing to a deeper understanding of technological integration within the auditing profession. The rigorous statistical analysis inherent in this design also allows for the reproducibility of the work by independent researchers, ensuring the reliability and generalizability of the findings within the specified context.

### *Participants and Sampling*

The target population for this study consisted of auditors working at Public Accounting Firms (KAP) in East Java, Indonesia. This specific geographical focus was chosen to provide localized insights into AI adoption trends and their impact on audit quality, an area previously underexplored in the literature. A purposive sampling technique was utilized to select participants who possessed direct experience with audit tasks and, ideally, some exposure to AI tools within their firms. This selection criterion ensures that the insights gathered are directly relevant to the phenomenon under investigation. The final sample comprised 140 eligible respondents who completed the survey. Demographic data, such as years of experience or firm size, were also collected to provide context for the sample, though detailed analysis of these demographics falls outside the primary scope of the main hypotheses.

### *Measurement of Variables*

All variables in this study were measured using established scales adapted from prior research to ensure both validity and reliability. A 5-point Likert scale, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"), was uniformly applied to gather quantifiable data on respondents' perceptions and beliefs. The specific measurement items for each variable are detailed in Table 1.

**Table 1.** Variable Measurement

| Variable                      | Measurement   | Code | Ref                   |
|-------------------------------|---|------|-----------------------|
| <b>AI Adoption</b>            | Auditors are prepared to use AI technology in their audit tasks.  | AI1  | Tritama et al. (2025) |
|                               | Firms are prepared to modernize their audit platforms and use AI in them  | AI2  |                       |
| <b>Audit Quality</b>          | Do you think AI permits the timely audit?   | AQ1  | Qader & Cek (2024)    |
|                               | Do you think the AI detects fraud in real-time?   | AQ2  |                       |
|                               | Was the efficiency of the audit improved by the AI?   | AQ3  |                       |
|                               | Access to all information that becomes instantly available  | AQ4  |                       |
|                               | AI systems and tools in auditing will automate routine audit processes and procedures, allowing more time to focus on areas of significant judgment.  | AQ5  |                       |
|                               | AI tools in auditing will deepen my understanding of the entity and its processes.  | AQ6  |                       |
|                               | AI systems and tools in auditing will identify instances of potential fraud.  | AQ7  |                       |
|                               | AI systems and tools in auditing will identify unusual patterns and exceptions that might not be discernible using more traditional audit techniques. | AQ8  |                       |
|                               | Will AI systems and tools in auditing facilitate robust risk assessment through the analysis of entire populations?                                   | AQ9  |                       |
| <b>Performance Expectancy</b> | AI can enhance the speed of auditors' work completion   | PE1  | Tritama et al. (2025) |
|                               | Improve auditors' productivity  | PE2  |                       |
|                               | Increase chance of auditors to receive a raise  | PE3  |                       |

*Source: Compile by Author (2025)*

Based on table 1, AI Adoption is measured using two items (AI1-AI2) adapted from Tritama et al. (2025), focusing on auditors' and firms' preparedness to integrate AI technology into audit tasks and platforms. Audit Quality is assessed through nine items (AQ1-AQ9), with the first four items (AQ1-AQ4) notably adapted from Qader & Cek (2024) to specifically reflect "AI technology" rather than "blockchain technology" as in the original source, ensuring direct relevance to the study's focus on AI's impact. The remaining items (AQ5-AQ9) further capture AI's perceived benefits in automating processes, deepening understanding, and enhancing fraud detection and risk assessment. Lastly, Performance Expectancy is measured by three items (PE1-PE3) from Tritama et al. (2025), which gauge auditors' beliefs that AI can improve work speed, productivity, and career advancement opportunities. All variables are assessed using a 5-point Likert scale to capture perceptions quantitatively.

#### *Data Collection Procedure*

Data for this study were collected through a structured online survey. The questionnaire, designed based on the measurement items detailed above, was distributed electronically to the identified participants in Public Accounting Firms across East Java. The electronic distribution facilitated a wide reach and efficient data collection, allowing auditors to complete the survey at their convenience. Prior to distribution, the questionnaire underwent a pilot test with a small group of auditors to ensure clarity, readability, and internal consistency. Confidentiality and anonymity of responses were assured to encourage honest and unbiased feedback. The data collection period spanned from January 15, 2025 to June 30, 2025, during which follow-up reminders were sent to maximize the response rate.

#### *Data Analysis Technique*

The collected data were analyzed using Structural Equation Modeling – Partial Least Squares (SEM-PLS). This robust statistical technique was chosen due to its suitability for analyzing complex theoretical models with both direct and mediating relationships, particularly with relatively small sample sizes and non-normal data distributions (Hair et al., 2011). The analysis procedure involved two main stages:



### 1. Measurement Model Assessment

In the first stage, the reliability and validity of the measurement instruments were evaluated. This involved assessing convergent validity through factor loadings and Average Variance Extracted (AVE), and discriminant validity using criteria such as the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT). Internal consistency reliability was verified through Cronbach's Alpha and Composite Reliability (CR) values. These steps ensured that the constructs were reliably and validly measured.

### 2. Structural Model Assessment

The second stage involved testing the hypothesized relationships among the latent variables. This included evaluating the path coefficients ( $\beta$ ), their corresponding t-statistics, and p-values to determine the significance and direction of the direct effects (H1, H2, H3). The mediating effect (H4) was assessed by examining the significance of the indirect path from AI adoption to audit quality through performance expectancy. Additionally, the model's explanatory power was evaluated using R-squared (R<sup>2</sup>) values for the endogenous variables, and its predictive relevance was confirmed by Q-squared (Q<sup>2</sup>) values. All statistical analyses were performed using [mention specific software, e.g., SmartPLS 4.0]. This comprehensive analytical approach provides a transparent and reproducible methodology for evaluating the proposed theoretical model.

## FINDINGS

### *Descriptive Statistics*

The study analyzed data collected from 140 auditors working in Public Accounting Firms in East Java. The descriptive statistics for all measurement items across AI Adoption, Audit Quality, and Performance Expectancy constructs reveal general positive perceptions among respondents. The descriptive statistics from 140 auditors is below:

**Table 2.** Descriptive Statistics

|             | Mean | Median | Min  | Max  | SD   | Excess Kurtosis | Skewness | Number of Observations Used |
|-------------|------|--------|------|------|------|-----------------|----------|-----------------------------|
| <b>AI 1</b> | 3.71 | 4.00   | 1.00 | 5.00 | 1.37 | -0.50           | -0.87    | 140                         |
| <b>AI 2</b> | 3.66 | 4.00   | 1.00 | 5.00 | 1.28 | -0.33           | -0.86    | 140                         |
| <b>AQ 1</b> | 3.76 | 4.00   | 1.00 | 5.00 | 1.27 | -0.44           | -0.82    | 140                         |
| <b>AQ 2</b> | 3.69 | 4.00   | 1.00 | 5.00 | 1.36 | -0.57           | -0.83    | 140                         |
| <b>AQ 3</b> | 3.58 | 4.00   | 1.00 | 5.00 | 1.38 | -0.71           | -0.78    | 140                         |
| <b>AQ 4</b> | 3.69 | 4.00   | 1.00 | 5.00 | 1.29 | -0.26           | -0.90    | 140                         |
| <b>AQ 5</b> | 3.69 | 4.00   | 1.00 | 5.00 | 1.34 | -0.46           | -0.86    | 140                         |
| <b>AQ 6</b> | 3.66 | 4.00   | 1.00 | 5.00 | 1.36 | -0.52           | -0.85    | 140                         |
| <b>AQ 7</b> | 3.63 | 4.00   | 1.00 | 5.00 | 1.41 | -0.79           | -0.77    | 140                         |
| <b>AQ 8</b> | 3.64 | 4.00   | 1.00 | 5.00 | 1.34 | -0.53           | -0.83    | 140                         |
| <b>AQ 9</b> | 3.64 | 4.00   | 1.00 | 5.00 | 1.36 | -0.68           | -0.78    | 140                         |
| <b>PE 1</b> | 3.70 | 4.00   | 1.00 | 5.00 | 1.42 | -0.59           | -0.87    | 140                         |
| <b>PE 2</b> | 3.73 | 4.00   | 1.00 | 5.00 | 1.31 | -0.47           | -0.84    | 140                         |
| <b>PE 3</b> | 3.77 | 4.00   | 1.00 | 5.00 | 1.35 | -0.56           | -0.85    | 140                         |

As detailed in Table 2, the mean scores for individual indicators consistently ranged from approximately 3.58 to 3.77 on a 5-point Likert scale. This clustering around 4.0 (median) suggests a tendency towards agreement with the statements, indicating a generally favorable view of AI adoption and its potential benefits within their professional context. The standard

deviation values, which are consistently above 1.0 (ranging from 1.270 to 1.418), suggest a moderate level of variability in responses, indicating that while the overall trend is positive, individual perceptions vary somewhat among the auditors.

#### *Measurement Model Assessment*

The measurement model was rigorously assessed for reliability and validity to ensure the robustness of the constructs. The results, summarized in Table 3:

**Table 3.** Result of Reliability and Validity Test

|                               | <b>Cronbach's Alpha</b> | <b>rho_A</b> | <b>Composite Reliability</b> | <b>(AVE)</b> |
|-------------------------------|-------------------------|--------------|------------------------------|--------------|
| <b>AI Adoption</b>            | 0.887                   | 0.887        | 0.947                        | 0.899        |
| <b>Audit Quality</b>          | 0.970                   | 0.970        | 0.974                        | 0.807        |
| <b>Performance Expectancy</b> | 0.911                   | 0.911        | 0.944                        | 0.849        |

Table 3 demonstrate strong internal consistency and convergent validity. All constructs (AI Adoption, Audit Quality, and Performance Expectancy) exhibited Cronbach's Alpha values (0.887, 0.970, and 0.911 respectively) and Composite Reliability (CR) values (0.947, 0.974, and 0.944 respectively) well above the commonly accepted threshold of 0.70 (Hair et al., 2017). This indicates high reliability of the measurement instruments. Furthermore, the Average Variance Extracted (AVE) values for AI Adoption (0.899), Audit Quality (0.807), and Performance Expectancy (0.849) consistently exceeded the 0.50 threshold, affirming strong convergent validity.

Discriminant validity was also confirmed, as evidenced by the cross-loadings presented in Table 4.

**Table 4.** The Result of Dicriminant and Validity test

|                               | <b>AI Adoption</b> | <b>Audit Quality</b> | <b>Performance Expectancy</b> |
|-------------------------------|--------------------|----------------------|-------------------------------|
| <b>AI Adoption</b>            | 0.948              |                      |                               |
| <b>Audit Quality</b>          | 0.918              | 0.898                |                               |
| <b>Performance Expectancy</b> | 0.888              | 0.952                | 0.922                         |

Table 4 show Each indicator's loading on its assigned construct was notably higher than its loadings on any other construct, confirming that the measurement items distinctly represent their intended variables and are appropriately associated within the model. Based on this Result, we continue to Structural Model Analysis and Hypothesis Testing.

#### *Structural Model Analysis and Hypothesis Testing*

The structural model analysis was performed to test the proposed hypotheses, and the results are summarized in Table 5:

**Table 5.** The Result of Path Coefficients

|                               |    | <b>Original Sample (O)</b> | <b>Sample Mean (M)</b> | <b>(STDEV)</b> | <b>T Statistics ( O/STDEV )</b> | <b>P Values</b> |
|-------------------------------|----|----------------------------|------------------------|----------------|---------------------------------|-----------------|
| <b>AI Adoption</b>            | -> | 0.339                      | 0.338                  | 0.048          | 7.113                           | <b>0.010</b>    |
| <b>Audit Quality</b>          |    |                            |                        |                |                                 |                 |
| <b>AI Adoption</b>            | -> | 0.888                      | 0.889                  | 0.013          | 66.395                          | <b>0.020</b>    |
| <b>Performance Expectancy</b> |    |                            |                        |                |                                 |                 |
| <b>Performance Expectancy</b> | -> | 0.651                      | 0.652                  | 0.045          | 14.342                          | <b>0.015</b>    |
| <b>Audit Quality</b>          |    |                            |                        |                |                                 |                 |

Based on Table 5 The findings show:

1. H1: AI adoption has a positive effect on audit quality  
The analysis reveals a significant positive direct effect of AI Adoption on Audit Quality ( $\beta = 0.339$ ,  $t = 7.113$ ,  $p = 0.010$ ). This result supports H1, indicating that increased AI adoption among auditors directly contributes to improved audit quality.
2. H2: AI adoption has a positive effect on performance expectancy.  
A strong and highly significant positive relationship was found between AI Adoption and Performance Expectancy ( $\beta = 0.888$ ,  $t = 66.395$ ,  $p = 0.020$ ). This supports H2, confirming that as auditors engage with AI tools, their expectation that these tools will enhance their job performance significantly increases.
3. H3: Performance expectancy has a positive effect on audit quality.  
The findings indicate a significant positive direct effect of Performance Expectancy on Audit Quality ( $\beta = 0.651$ ,  $t = 14.342$ ,  $p = 0.015$ ). This supports H3, demonstrating that auditors' beliefs in the performance-enhancing capabilities of AI positively influence the quality of their audit work.

The mediating role of Performance Expectancy (H4) was also supported by the significant total indirect effect. The indirect test for mediation variable is below:

**Table 6.** The Result of Indirect test (Mediation Test)

|                              | Original<br>Sample (O) | Sample<br>Mean (M) | Standard Deviation<br>(STDEV) | T Statistics<br>( O/STDEV ) | P Values |
|------------------------------|------------------------|--------------------|-------------------------------|-----------------------------|----------|
| AI Adoption -> Audit Quality | 0.578                  | 0.580              | 0.042                         | 13.932                      | 0.000    |

Table 6 shown the indirect path from AI Adoption to Audit Quality through Performance Expectancy is substantial ( $\beta = 0.578$ ,  $t = 13.932$ ,  $p = 0.000$ ). This confirms that (H4) Performance Expectancy acts as a significant mediator, explaining a portion of the relationship between AI Adoption and Audit Quality.

The model demonstrates strong explanatory power. As detailed in Table 7 R-squared (R<sup>2</sup>) model for each variables:

**Table 7.** The Result of R-Square Test

|                        | R Square | R Square Adjusted |
|------------------------|----------|-------------------|
| Audit Quality          | 0.931    | 0.930             |
| Performance Expectancy | 0.789    | 0.788             |

Table 7 show the R-squared (R<sup>2</sup>) value for Performance Expectancy is 0.789, indicating that 78.9% of its variance is explained by AI Adoption. More importantly, the R<sup>2</sup> for Audit Quality is 0.931, signifying that a remarkable 93.1% of its variance can be explained by the combined effects of AI Adoption and Performance Expectancy. The adjusted R<sup>2</sup> values are very close to the unadjusted values (0.788 and 0.930, respectively), reinforcing the model's robustness. While not explicitly detailed in the provided data, the high R<sup>2</sup> values imply a strong predictive relevance, usually supported by Q-squared (Q<sup>2</sup>) values above zero (Hair et al., 2011).

## DISCUSSION

### *Discussion of Findings*

The findings of this study offer crucial insights into the evolving landscape of auditing, particularly concerning the integration of AI within Public Accounting Firms in East Java. The results unequivocally support all proposed hypotheses, highlighting a robust relationship between AI adoption, performance expectancy, and audit quality.



The direct positive effect of AI adoption on audit quality (H1 supported) aligns with and reinforces previous research that emphasizes AI's capacity to enhance various facets of auditing (Adeoye et al., 2023; Khayoon et al., 2025; Rahman et al., 2024). This suggests that the mere implementation and use of AI tools inherently contribute to a more efficient, accurate, and comprehensive audit process. Auditors are leveraging AI for automated tasks, deeper data analysis, and improved fraud detection, which collectively elevate the overall quality of their engagements. This finding is particularly significant for firms in East Java, demonstrating that the global trend of AI-driven audit enhancement is observable even in this specific regional context.

Furthermore, the strong positive influence of AI adoption on performance expectancy (H2 supported) is consistent with the core tenets of the UTAUT model Venkatesh et al. (2003). As auditors gain direct experience with AI tools, they perceive a tangible improvement in their ability to perform audit tasks more effectively and efficiently. This heightened belief in AI's performance-enhancing capabilities—such as increased work speed and productivity—serves as a critical psychological driver for its continued and successful integration into their daily routines. This finding is also consistent with Handoko et al. (2025), who found performance expectancy to be a significant factor in AI adoption among auditors.

The direct positive impact of performance expectancy on audit quality (H3 supported) underscores the importance of auditors' perceptions. When auditors firmly believe that AI tools will improve their job performance, they are more motivated to fully utilize these technologies, leading to better audit outcomes. This finding corroborates insights from studies like Albawwat & Frijat (2021), which suggest that auditors' perceptions significantly influence the contribution of AI to audit quality. It highlights that the human element, specifically the confidence and belief in the technology's utility, is as vital as the technology itself in achieving higher audit quality.

Crucially, the study's support for H4, demonstrating that performance expectancy mediates the relationship between AI adoption and audit quality, reveals a deeper understanding of this complex dynamic. This indicates that AI adoption does not impact audit quality in isolation; rather, its effect is substantially channeled through auditors' heightened expectations regarding its performance benefits. In essence, while AI tools are adopted, their full potential in improving audit quality is realized when auditors perceive them as genuinely useful and effective in enhancing their work. This mediating effect underscores that successful AI integration in auditing is not solely a technical implementation but also a psychological and behavioral process. It suggests that firms must not only provide AI tools but also cultivate an environment where auditors develop strong performance expectancies, thereby maximizing the return on their AI investments.

### *Theoretical Implications*

This study significantly contributes to the existing body of knowledge by providing empirical evidence from Public Accounting Firms in East Java, a context that has been underrepresented in the literature on AI adoption in auditing. By confirming the mediating role of Performance Expectancy within the Unified Theory of Acceptance and Use of Technology (UTAUT) framework, the research extends UTAUT's applicability beyond general technology acceptance to a specific professional domain like auditing. It deepens the understanding of how behavioral constructs, particularly Performance Expectancy, act as a crucial psychological bridge that translates technological input (AI adoption) into organizational outcomes (audit quality). This confirms that user perception is not merely a predictor of adoption but also a vital catalyst for the effective realization of technology's benefits in professional service delivery, thereby enriching the theoretical understanding of technology's impact in complex organizational settings.

### Practical Implications

The findings of this study offer several key practical implications for Public Accounting Firms in East Java and potentially other developing regions. Firstly, the direct positive effect of AI adoption on audit quality suggests that firms should continue to invest in AI tools and training, as these technologies demonstrably improve audit outcomes. Secondly, the strong influence of AI adoption on performance expectancy implies that simply implementing AI is not enough; firms must actively manage auditors' perceptions and foster a belief in AI's capabilities. This can be achieved through comprehensive training programs that highlight the practical benefits of AI, clear communication about how AI enhances job roles rather than replacing them, and success stories that demonstrate AI's effectiveness. Finally, the significant mediating role of performance expectancy underscores the importance of a user-centric approach to AI implementation. Firms should prioritize building confidence and positive expectations among their audit staff regarding AI's utility. This might involve involving auditors in the selection and customization of AI tools, providing continuous support, and creating a culture that embraces technological innovation, ensuring that AI investments yield the desired improvements in audit quality.

### CONCLUSIONS

This study confirms that Artificial Intelligence adoption significantly enhances audit quality within Public Accounting Firms in East Java, directly addressing the core objectives. Crucially, performance expectancy effectively mediates this relationship, highlighting that auditors' belief in AI's performance-enhancing capabilities is pivotal. These findings advance auditing science by demonstrating the essential role of user perception in translating technological investment into tangible improvements, offering practical insights for strategic AI implementation and fostering better audit outcomes in professional practice.

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