CHAPTER I

INTRODUCTION

1.1 Research Background

Financial statements and financial accountability reports serve as key tools for evaluating financial information. Investors and creditors rely on financial statements to support economic decisions, while governments, legislative bodies, citizens, and other stakeholders use financial accountability reports to assess public resource management (PCAOB, 2024; BPK RI, 2006). The credibility of financial information is not only determined by the information prepared by management or reporting entities, but also by the quality of the independent assurance process performed by external auditors (DeAngelo, 1981; Francis, 2024). Because the credibility of this assurance process relies entirely on the auditor's execution, understanding the determinants of audit quality requires an examination of the actual competencies and capabilities inherent in the individuals performing the work. In other words, auditing is not merely a regulatory obligation, but a fundamental mechanism that maintains public trust in the financial reporting and accountability system (Francis, 2024; PCAOB, 2024; BPK RI, 2006).

Audit quality is a major concern because users of financial statements rely on auditors to provide assurance that financial statements are free from material misstatement and fairly present the company's financial condition (DeAngelo, 1981; Francis, 2024). Conceptually, DeAngelo (1981) defines audit quality as the joint probability that an auditor will both discover and report a breach in the client's accounting system. This definition emphasizes two crucial elements, namely competence in detecting misstatements and independence in reporting such findings. Although this definition remains an important foundation in the literature, the development of audit research shows that audit quality is a much more complex construct because it involves audit inputs, audit processes, audit outputs, and the broader institutional environment (Knechel et al., 2013; Francis,

2024). Francis (2024) explicitly states that there is no single measure that can comprehensively represent the quality of an audit engagement. Therefore, the multidimensional nature of audit quality encourages researchers to examine this phenomenon from various complementary perspectives.

One perspective that has developed in the literature is the examination of audit quality from the standpoint of auditors' actual performance during the audit process (Knechel et al., 2013; Ham et al., 2025). This perspective arises from the awareness that audit quality is not automatically produced by applicable professional standards, but is generated through auditors' competence, decisions, and judgments in carrying out each stage of audit work (IAASB, 2025; Ham et al., 2025). The shift in focus from audit outcomes to auditor performance reflects the recognition that outcome-based proxies, such as earnings management, audit fees, audit report lag, or restatements, often reflect the aggregate financial reporting condition of the client rather than the actual quality of audit execution, although these proxies remain useful in archival research (Knechel et al., 2013; Francis, 2024). Based on this perspective, this study operationalizes Audit Quality Performance (AQP) as the main construct, referring to auditors' actual performance in conducting audit procedures, evaluating audit evidence, applying professional judgment, maintaining professional skepticism, and producing reliable audit conclusions in accordance with applicable standards (Knechel et al., 2013; IAASB, 2025; Ham et al., 2025). This construct is relevant for research at the individual auditor level because it directly reflects how auditors carry out their professional responsibilities under real audit conditions.

The importance of AQP as a research focus has increased alongside the growing complexity of the contemporary audit environment. Digital platforms, automated systems, cross-border transactions, and large-scale data processing have fundamentally changed the nature of audit evidence and the way auditors perform audit procedures (Fedyk et al., 2022; Vitali & Giuliani, 2024). These changes require auditors to possess capabilities beyond conventional accounting and auditing knowledge, as auditors are increasingly expected to understand

digital systems, analyze technology-generated evidence, and respond to risks inherent in technology-based business processes (Seethamraju & Hecimovic, 2023; Kokina et al., 2025). Regulatory expectations also reflect the same urgency. PCAOB (2024) identifies risk assessment, audit procedures, quality control, and technology-related considerations as key inspection priorities for 2025, while IAASB (2025) emphasizes that professional skepticism remains a central element in audit execution, particularly in the assessment of fraud and going concern. These regulatory demands confirm that AQP no longer depends solely on formal compliance with procedures, but also on auditors' actual ability to deal with increasingly dynamic and uncertain audit conditions.

To understand the factors that determine AQP, this study grounds its theoretical foundation in Human Capital Theory developed by Schultz (1961) and Becker (1964). This theory views individual knowledge, skills, and abilities as forms of productive capital that directly influence a person's work capacity and performance in carrying out tasks. In the auditing context, the relevance of Human Capital Theory is particularly strong because audit work is knowledge-intensive and depends significantly on auditors' expertise, experience, and ability to evaluate evidence and make professional decisions (Thiéry et al., 2023; Ham et al., 2025). Thus, Human Capital Theory provides a strong theoretical foundation for explaining why auditors with higher human capital are expected to produce better AQP, because audit quality does not arise from mechanical compliance with standard procedures, but from the quality of the actual capabilities of the auditors who perform the process (Thiéry et al., 2023; Aobdia et al., 2025; Ham et al., 2025).

This study represents auditors' human capital through four conceptually relevant and distinguishable dimensions: audit knowledge and skills, digital skills, analytical skills, and professional judgment (Ham et al., 2025; Vitali & Giuliani, 2024). Audit knowledge and skills constitute the foundation of auditors' competence in conducting the audit process effectively and in accordance with professional standards. In this study, audit knowledge and skills are defined as

auditors' ability to understand and apply audit knowledge and audit skills throughout the audit process. Audit knowledge includes an understanding of the Indonesian Public Accountant Professional Standards (Standar Profesional Akuntan Publik/SPAP) or the International Standards on Auditing (ISA), financial accounting principles, risk-based audit methodology, and industry-specific knowledge related to the characteristics of the client's business and industry (IAASB, 2019, 2020; PCAOB, 2024). Meanwhile, audit skills include communication and teamwork skills used by auditors to obtain relevant information, coordinate audit work, discuss audit findings, and communicate audit results clearly and professionally. This is consistent with audit standards that emphasize risk assessment, engagement team communication, supervision, review, and quality management throughout the audit engagement (IAASB, 2019, 2020). Thus, audit knowledge and skills do not only represent what auditors know, but also how auditors use such knowledge and skills in performing audit tasks. This capability is an important determinant of AQP because auditors must be able to plan and perform appropriate audit procedures, evaluate management assertions, assess audit evidence, and determine how audit technology should be used properly in the process of collecting and evaluating evidence (Kokina et al., 2025; Law & Shen, 2025). Ham et al. (2025) provide empirical evidence that auditors' cognitive skills are positively associated with audit quality, particularly in engagements that require coordination, knowledge transfer, and in-depth professional judgment.

Digital skills have become increasingly crucial because audit evidence is now largely generated, stored, and processed through digital systems (Fedyk et al., 2022; Seethamraju & Hecimovic, 2023). Auditors with adequate digital skills are better prepared to use audit technologies, including data analytics, Computer Assisted Audit Techniques (CAATs), robotic process automation, and artificial intelligence, to expand the scope of testing and improve audit work efficiency (Seethamraju & Hecimovic, 2023; Vitali & Giuliani, 2024). Vitali and Giuliani (2024) show that technologies such as RPA and AI do not only affect technical audit activities, but also the organizational structure of audit firms and the

competitive gap between large and smaller firms. Therefore, gaps in digital skills among auditors can directly affect gaps in the quality of audit performance produced.

In addition to digital skills, analytical skills are also important because AI and data analytics can generate large amounts of information in a short period of time. However, auditors must still be able to critically interpret the results, assess the relevance of identified patterns, and connect the findings to specific audit objectives (Kokina et al., 2025; Law & Shen, 2025). Kokina et al. (2025) specifically emphasize that the use of AI in auditing still faces serious challenges related to transparency, explainability, and the risk of auditor overreliance on technological outputs. Therefore, strong analytical skills are essential to ensure that auditors evaluate technological outputs critically rather than accepting them mechanically.

The fourth dimension is professional judgment, which is closely related to professional skepticism because auditors must maintain a critical mindset, consider contradictory evidence, and challenge management assumptions when necessary (IAASB, 2025; Nelson & Tan, 2005). Chen et al. (2023) show that professional skepticism is closely related to auditor quality, while IAASB (2025) emphasizes that professional judgment remains an element that cannot be replaced by technology, particularly in situations involving fraud and going concern assessments. Therefore, auditors with mature professional judgment are expected to form more reliable audit conclusions, regardless of the complexity of the technological environment surrounding the audit 1process (Nelson & Tan, 2005; IAASB, 2025).

Along with the increasing use of AI in audit practice, this study introduces AI adoption as a variable that moderates the relationship between auditors' human capital and AQP. AI adoption in auditing refers to the active use of artificial intelligence technology to support audit activities, such as machine learning for anomaly detection, natural language processing for document analysis, and robotic process automation for repetitive audit tasks (Fedyk et al., 2022; Kokina

et al., 2025). Within the framework of Human Capital Theory, technology does not independently produce better audit quality because the benefits of technology highly depend on the ability of individuals to operate, interpret, and evaluate it (Becker, 1964; Kokina et al., 2025; Law & Shen, 2025). Law and Shen (2025) empirically show that AI functions as a complement to human auditors, rather than as an independent substitute. Thus, the productive value of AI in auditing is determined by the quality of auditors' human capital that interacts with it.

From this perspective, AI adoption forms the context in which auditors' human capital is translated into audit performance. When the level of AI adoption in an audit engagement increases, the demands placed on auditors' audit knowledge and skills, digital skills, analytical skills, and professional judgment also increase simultaneously. As a result, the contribution of these forms of human capital to AQP becomes more significant (Ham et al., 2025; Law & Shen, 2025; IAASB, 2025). In other words, AI adoption strengthens the productive value of auditors' human capital because auditors with higher capabilities will be able to utilize AI technology more effectively to improve the quality of their audit performance compared with auditors with lower capabilities under the same level of AI adoption (Kokina et al., 2025; Ham et al., 2025).

In the Indonesian context, the issue of Audit Quality Performance and AI adoption in auditing has become increasingly urgent for both private-sector and public-sector external audit institutions. In the private-sector audit context, data from the Center for Financial Professional Development (PPPK) of the Ministry of Finance as of November 2024 recorded various sanctions imposed on Public Accountants, including written warnings, restrictions on audit services, and license revocations. Several of these cases were related to significant violations of professional standards during the 2020–2024 period (PPPK, 2025). This condition indicates that issues related to competence, professional judgment, and consistency in performing audit procedures remain real challenges in the practice of the public accounting profession in Indonesia. Meanwhile, in the public-sector audit context, the Audit Board of the Republic of Indonesia (BPK) also requires

auditors who are able to maintain high audit quality performance because BPK is responsible for auditing the management and accountability of state finances (BPK RI, 2006). Therefore, examining auditors from both Public Accounting Firms (KAP) and BPK provides a broader understanding of Audit Quality Performance across different external audit settings in Indonesia.

At the same time, the use of AI-based audit technology has not developed evenly across audit institutions in Indonesia. In Public Accounting Firms (KAP), the adoption of audit technology is influenced by organizational readiness, IT audit competence, perceived ease of use, and information technology governance (El Natsir & Sundjaja, 2025). This indicates that there is heterogeneity in technology adoption among private-sector audit institutions. A similar issue is also relevant in the public-sector audit context, where the use of digital technology and AI-based tools requires not only institutional readiness, but also auditors' ability to understand, operate, and evaluate technology-generated audit evidence. Sari and Wahyuda (2025) also show that Indonesian auditors tend to accept assisted AI systems that still require active human evaluation more than fully autonomous AI systems. This indicates that the use of AI in Indonesian audit practice highly depends on auditors' ability to understand, operate, and evaluate such technology. These conditions position Indonesia as an important context for examining how auditors' human capital and AI adoption jointly influence Audit Quality Performance across both KAP and BPK audit environments.

Although research on audit quality, human capital, and AI in auditing has developed in recent years, several substantive research gaps remain unanswered. Methodologically, previous studies still predominantly use outcome-based proxies to measure audit quality. Therefore, studies that directly examine AQP from the perspective of individual auditors' actual performance in the audit process remain very limited (Knechel et al., 2013; Francis, 2024; Ham et al., 2025). Conceptually, existing research tends to examine human capital dimensions partially. Thiéry et al. (2023) focus on human capital in the context of internal audit, Seethamraju and Hecimovic (2023) examine changes in skills

resulting from AI adoption, while Ham et al. (2025) use a cognitive-social categorization that does not explicitly separate digital skills and analytical skills as distinct dimensions. Research that explicitly integrates audit knowledge and skills, digital skills, analytical skills, and professional judgment as a comprehensive representation of auditors' human capital in a single model grounded in Human Capital Theory remains relatively limited.

Contextually, most recent literature on AI adoption in auditing has been developed in advanced economies with mature audit markets and more established technological infrastructure (Fedyk et al., 2022; Vitali & Giuliani, 2024; Law & Shen, 2025). Therefore, these findings cannot be directly generalized to the Indonesian context, which has a different regulatory environment, technological readiness, audit market structure, and public-sector accountability system. In addition, studies that examine Audit Quality Performance across both private-sector auditors in Public Accounting Firms and public-sector external auditors in BPK remain limited. This creates an important contextual gap because KAP and BPK auditors operate in different institutional environments, but both are required to maintain high audit quality performance, exercise professional judgment, and adapt to technological developments in audit practice (BPK RI, 2006; IAASB, 2014; Vitali & Giuliani, 2024).

Based on the theoretical foundation, empirical evidence, and research gaps discussed above, this study examines the effect of audit knowledge and skills, digital skills, analytical skills, and professional judgment on Audit Quality Performance, with AI adoption as a moderating variable, among external auditors working at Public Accounting Firms (KAP) and the Audit Board of the Republic of Indonesia (BPK). By using Human Capital Theory as the main theoretical framework, this study views the four dimensions of auditor capability as key forms of human capital that shape auditors' actual capacity to produce high-quality audit performance. Furthermore, this study positions AI adoption as a contextual factor that may strengthen the relationship between auditors' human capital and Audit Quality Performance in an increasingly digitalized audit environment.

Therefore, this study is expected to provide a broader understanding of Audit Quality Performance by considering both private-sector and public-sector external audit contexts in Indonesia.

1.2 Research Questions

Audit quality performance is the primary focus of this study because it reflects auditors' actual performance in producing reliable and independent audit outputs. Although audit standards have evolved comprehensively, various regulatory findings indicate that audit quality in practice still faces significant challenges. Various regulatory findings consistently indicate recurring weaknesses in core aspects of the audit process, such as the assessment of material misstatement risk, the depth of substantive testing, as well as the documentation and application of professional judgment. These conditions confirm that audit quality has not yet been fully realized in the form of auditors' actual performance.

Methodologically, the dominant use of indirect proxies in measuring audit quality such as earnings management, audit fees, and audit opinions creates significant conceptual limitations. These proxies reflect the downstream consequences of the audit process rather than the auditors' actual performance in producing that quality. As a result, a gap emerges between the measured construct and the actual phenomenon being explained, thereby hindering a deeper understanding of the determinants of audit quality itself. In this context, audit quality performance offers a more direct and operational approach, as it focuses on how auditors conduct audit procedures, utilize their competencies, and make decisions in complex and uncertain situations.

Furthermore, the dynamics of the contemporary audit environment marked by the complexity of transactions, the digitization of business processes, and the integration of artificial intelligence (AI)-based technologies have fundamentally transformed the nature of audit work. This transformation not only increases demands on auditors' technical capabilities but also shifts the role of professional judgment in navigating the interaction between humans and technology. In this context, audit quality performance becomes a critical focal point for understanding

whether and how auditors can maintain the quality of their performance amid the pressures of complexity and technological disruption.

Thus, audit quality performance can no longer be viewed merely as an outcome but as an essential research problem. Focusing on this variable opens the door to a deeper examination of the determinants of audit quality at the individual auditor level, particularly those related to core capabilities such as audit knowledge and skills, digital skills, analytical skills, and professional judgment, as well as how these relationships are influenced by the adoption of AI-based technology.

Based on the above, the research questions in this study are as follows:

1. What is the influence of audit knowledge and skills, digital skills, analytical skills, and professional judgment on audit quality performance?
2. What is the influence of Artificial Intelligence adoption on audit quality performance?
3. What is the moderating effect of Artificial Intelligence adoption on the relationship between audit knowledge and skills, digital skills, analytical skills, professional judgment, and audit quality performance?

1.3 Research Objectives

Based on the research questions outlined above, this study aims to obtain empirical evidence regarding the influence of auditors' capabilities on audit quality performance, as well as the role of Artificial Intelligence adoption as a moderating variable in that relationship. Specifically, the objectives of this study are as follows:

1. To examine the influence of audit knowledge and skills, digital skills, analytical skills, and professional judgment on audit quality performance.
2. To examine the influence of Artificial Intelligence Adoption on audit quality performance.
3. To examine the moderating effect of AI adoption on the relationship between audit knowledge and skills, digital skills, analytical skills, professional judgment, and audit quality performance.

1.4 Research Benefits

This study is expected to provide both theoretical and practical benefits as follows:

1. Theoretical Benefits

Theoretically, this study is expected to contribute to the development of literature in the field of auditing, particularly regarding the concept of audit quality performance as a more direct approach to measuring audit quality. This study expands the understanding of audit quality determinants by integrating auditor capabilities at the individual level, namely audit knowledge and skills, digital skills, analytical skills, and professional judgment into a comprehensive analytical framework.

Additionally, this study contributes to enriching the discussion on the role of technology in auditing by incorporating AI adoption as a moderating variable. Thus, this study not only addresses the empirical gap regarding audit quality measurement that is more grounded in actual performance but also broadens the theoretical perspective on the interaction between human capabilities and technology in determining audit quality in the digital era.

2. Practical Benefits

a. For Audit Institutions

This study is expected to serve as a reference in designing strategies to improve audit quality through the comprehensive strengthening of auditors' capabilities. Specifically, the findings can assist Audit Institutions, including Public Accounting Firms and BPK in identifying key competencies that need to be developed, such as audit knowledge and skills, digital skills, analytical skills, and professional judgment. Additionally, this research provides insights into the importance of integrating artificial intelligence-based technology into the audit process

to enhance the effectiveness and efficiency of auditors' work. Consequently, PAFs and BPK can be more adaptive in responding to the demands of an increasingly complex and digitized audit environment.

b. For Regulators and Policymakers

This research is expected to serve as a basis for formulating policies that support the sustainable improvement of audit quality. The findings of this study can provide an overview of the factors influencing auditor performance, enabling regulators to develop competency standards more relevant to current practice needs. Furthermore, the results of this study can serve as a foundation for promoting the targeted use of technology, particularly artificial intelligence, in audit practice. With appropriate policy support, it is hoped that audit quality in Indonesia will improve consistently.

c. For Educational Institutions

This research can serve as a reference for developing accounting and auditing curricula that are more responsive to technological advancements and industry needs. The findings highlight the importance of balancing mastery of traditional audit concepts with modern skills, such as digital literacy and analytical abilities. Furthermore, this study emphasizes the importance of developing professional judgment as a core competency for auditors. Thus, educational institutions can produce graduates who are better prepared to face professional challenges in the digital era.

d. For Readers

This study is expected to provide a more comprehensive understanding of the factors influencing audit quality, particularly from the perspective of auditors' direct performance. Readers can gain insights into how individual auditors' capabilities and the use of technology interact in determining the quality of audit outputs. Additionally, this

study can serve as a reference for those interested in the evolution of auditing practices in the digital age. Thus, it is expected to enrich readers' knowledge and perspectives in understanding the dynamics of audit quality.

e. For Future Researchers

This study is intended to serve as a reference and foundation for future research exploring similar topics. The results of this study can be used as a basis for developing broader research models, either by adding other variables or by employing different methodological approaches. Furthermore, this study opens opportunities for further exploration regarding the role of technology in auditing, particularly in different contexts or at a broader level of analysis. Thus, this study is expected to encourage the development of more in-depth and sustainable research in the field of auditing.