

AUDITOR'S TECHNICAL, DIGITAL, AND CREATIVITY SKILLS AND THEIR ROLE IN SUPPORTING AUDIT OUTCOMES IN LIGHT OF DIGITAL TRANSFORMATION STRATEGY

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Abstract

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The ability to ingeniously include aspects of surprise in audits is a requirement vital to the auditing profession (Herron & Cornell, 2021). The study investigates the auditor's technical, digital, and creativity skills and their role in supporting the quality of audit outcomes in light of the digital transformation strategy. The study used partial least squares structural equation modelling (PLS-SEM) to test the hypotheses. A questionnaire was distributed to 263 auditors from small and medium-sized Jordanian auditing firms and offices, comprising the study sample for data analysis. The study's results proved that the auditor's technical, digital, and creativity skills significantly enhance the quality of audit outcomes by verifying the correction of any significant defects found or reported in the audit report, meeting the expectations of audit clients, and collecting audit evidence. Considering that digitization is both a challenge and a vital opportunity for auditing, the results provided insightful information that is useful to all relevant parties that utilize the audit work's findings to inform their decisions. Given its critical significance in improving the quality of audit outcomes, this study offers significant positive results on an auditor's digital competence impact and fostering auditor creativity on the quality of audit outcomes, which is noteworthy given its essential importance in supporting audit quality. Therefore, the International Auditing and Assurance Standards Board's (IAASB) Framework invites audit firms to consider advanced methods for raising the caliber of their audits.

Keywords: Technical Skills, Digital Skills, Creativity Skills, Audit Outcomes, External Auditors

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1. INTRODUCTION

Big data management is now a must for many businesses and a vital instrument for their digital transformation (Szafir, 2024). Information technology (IT) and digital innovations have also advanced recently, especially in light of the significant changes that are currently taking place in accounting, auditing, and corporate operations (Kogan et al., 2019; Igou et al., 2023). Over the past few years, blockchain technology, big data analytics, and artificial intelligence have become more prominent in the auditing industry (Melin & Toezay, 2022). Auditing has also witnessed a rapid shift towards digital transformation, keeping pace with other advancements in the data revolution (Eulerich et al., 2022), and corporations have also increased the use of technology (Brown-Liburd et al., 2015). Thus, auditors must be equipped with the knowledge and abilities to navigate these systems and gather, analyze, and interpret the vast amounts of complex data they contain (Brown-Liburd et al., 2015). Therefore, fully and semi-automated digitalized audit processes are unavoidable given the increasing digitalization of business entities (Kogan et al., 2019, as cited in Barr-Pulliam et al., 2024). Otherwise, auditors will find it more challenging to comprehend financial operations, adjust to various accounting standards and legal needs, and locate the proofs needed to back up financial assertions (Liu & Lai, 2012). Veerankutty et al. (2018) confirmed that technology-enabled auditing and IT-focused audit procedures have become essential and crucial to ensuring that audit technology is used successfully. Auditors have come under more scrutiny since their work has been put through a more thorough evaluation process. As a result, there is more focus on audit quality and a need for auditors to gather stronger evidence to satisfy the growing demands of stakeholders, investors, and regulators (Barr-Pulliam et al., 2024). Therefore, this study investigates the auditor's technical, digital, and creativity skills and their role in supporting audit outcomes in light of digital transformation for small and medium-sized Jordanian auditing firms and offices.

Moreover, technological advancements have modified the practices used in accounting and auditing (Thottoli et al., 2022). Being digitally literate does not entail purchasing large technological platforms or even mastering technology, but it is related to having the digital skills, tools, and core competencies auditors need to audit in a highly technologically driven environment where copious amounts of data are generated (Pacific Association of Supreme Audit Institutions [PASAI], 2024). To conduct audits more effectively and efficiently and to employ big data, artificial intelligence, and data analytics as tools to record, verify, and track transactions utilizing massive data sets at a lower cost, auditors must understand how to best utilize these digital technologies (PASAI, 2024). According to Ferrari et al. (2012), digital competence is a collection of skills that enable us to successfully use technology.

Furthermore, the International Auditing and Assurance Standards Board (IAASB) has created a framework for audit quality outlining the input, process, and output factors contributing to audit quality for financial statement audits (IAASB, 2025; Association of Chartered Certified Accountants [ACCA], n.d.). Francis (2024) examined many viewpoints regarding audit quality and thoroughly

examined the reasons why audit outcomes, such as audit reports and the caliber of the client's audited financial statements, serve as the most pertinent foundation for evaluating audit quality. So, audit companies consistently strive to employ cutting-edge methods to offer their clients effective audit services and uphold a positive reputation with their stakeholders (Wessels, 2005). Companies should prioritize audit quality because it validates and supports the caliber of financial reporting, which is essential for investors and markets (Australian Securities and Investments Commission [ASIC], n.d.). Almaleeh (2021) indicates that the perception or definition of audit quality depends on who looks at it (users, auditors, regulators, and other stakeholders in the financial reporting process). These stakeholders may have different perspectives on what constitutes a high-quality audit, with users of financial reports defining it as the absence of material misstatement, as defined by auditors as fulfilling all requirements outlined in the audit methodology of the company (Almaleeh, 2021).

It is often indicated that the audit industry is ready for automation at all operational levels through artificial intelligence technologies (Rikhardsson et al., 2022). To guarantee that significant misstatements in the financial statements are found and disclosed, the audit must be carried out with quality, but it must also use resources effectively to accomplish its goals (ISA 300, A.10). Continuous auditing is being explored by academics and practitioners as a possible replacement for the conventional audit paradigm. The continuous auditing approach improves the efficacy and efficiency of the audit process to enable real-time assurance through technology and automation (Chan & Vasarhelyi, 2011).

Research on private-sector auditing has mostly concentrated on adopting and using technology, ignoring the broader idea of digital transformation. As audit technology becomes more commonplace, practitioners are growing increasingly concerned about the costs and advantages of audit technology (Eulerich et al., 2023). Also, the contemporary function of auditors has been brought into question by recent accounting crises, which have led to a revaluation of the competencies, expertise, and attitudes that are necessary for auditors in the modern business environment (Siriwardane et al., 2014). As pointed out, audit firms' periodic assessments frequently conclude that audits are not always of a high caliber (ACCA, n.d.). Also, technical (technological) skills have not been as highly appreciated as accounting, finance, law, and policy skills, together with communication and team-building abilities, and audit has also relied heavily on these talents (Kokina et al., 2021). However, despite these technological advancements, many auditors still need to gain the ability to use digital technologies in their work. As a result, they may need to reorganize their duties and skill sets to stay competitive (Dai & Vasarhelyi, 2016; Schmitz & Leoni, 2019, as cited in Pemer & Werr, 2024). Also, although a lot of companies are now utilizing IT-based systems, advancement, and auditor preparation in this area have lagged in Jordan (Allbabidi, 2021). More studies on digital IT auditing could improve the many challenges that the audit profession in Jordan faces (Mansour, 2019, as cited in Allbabidi, 2021).

To illustrate the significance of the skills and abilities that external auditors need to possess to support the caliber of audit outcomes under the digital transformation technique. The study focuses on how auditors' technical, creative, and digital skills enhance the caliber of audit findings. Given the many viewpoints, it is evident that a thorough literary examination of how these abilities interact with audit quality might add to the existing conversations, a topic that has not been explored in the scientific pieces of literature in Jordan as a developing country concerning auditing firms generally. Thus, the study intends to close this vacuum in the literature and explore how auditors' technical, digital, and creative skills contribute to higher-quality audit outcomes.

This study will address two research questions:

RQ1: What are the definitions of digital, creative, and technical skills?

RQ2: Do these skills impact the caliber of audit findings?

To answer the first research question, technical, digital, and innovative skills were defined in this study, and their significance in raising the caliber of audit outcomes was illustrated. To respond to the second research question, the skills mentioned earlier were measured using a set of dimensions by a questionnaire distributed to auditors. Therefore, in light of the digital transformation, this study offers insights into areas where audit firm management could concentrate and increase their investments in the skills and creativity of auditors as drivers of improved audit outcomes.

The rest of this study is structured as follows. Section 2 reviews the literature on technical, digital, and creative skills and how they enhance audit results. Section 3 explains the methodology along with the sample and data sources, measurement variables, and sample demographics. Section 4 presents the findings of the SmartPLS and descriptive analysis tests. Section 5 discusses the results of the hypothesis testing. Section 6 presents conclusions, implications, and limitations of the study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The IAASB recognizes that the term audit quality or audit outcomes is often used in discussions among stakeholders and in correspondence from regulators, audit firms, standard setters, and other parties; however, because audit quality is such a complex topic, no definition or analysis of it has attained universal recognition (IAASB, 2025; ACCA, n.d.). Sukriah et al. (2009) indicate that audit quality is defined as the auditor's work result demonstrating a trustworthy audit report based on the required standards. Even though it can be difficult to define the term "audit quality", the IAASB uses the term "audit quality" to refer to a set of important elements: inputs, process, output, interactions within the financial reporting supply chain and contextual factors that work together to maximize the possibility that quality audits will be conducted regularly (IAASB, 2025). Within the audit input factors, audit quality attributes are further organized, which include the values, ethics, and attitudes of auditors, as well as their knowledge, skills, and experience (ACCA, n.d.).

Moreover, professionals are paying close attention to increasing the quantity of technology utilized in audit tasks (PricewaterhouseCoopers [PwC], 2018; Hood, 2018, as cited in Eulerich et al., 2023). As a result, there are persistent requests from practitioners and academics for research on how technology may affect the audit profession (Eulerich et al., 2023). Furthermore, Allbabidi (2021) explores that, compared to their manual auditing approach, digital technological advancement can help auditors perform better. For example, it can make the auditors' tasks more effective and efficient in ensuring the auditees' internal control, accessing documents and records, and producing information. So, audit outcomes have always been a major consideration for auditors. Thus, a high-quality audit decreases audit risk (ACCA, n.d.).

2.1. Technical skills and enhancing the quality of audit outcomes

The inputs, instruments, and information that the auditor has access to during the audit process have been significantly impacted in recent years by technological advancements and the ensuing digitization of data and processes (Lugli & Bertacchini, 2023). Johari et al. (2019) state that poorly performing auditors are linked to low-subpar auditing. So, optimal employment in audit firms is crucial because of the significant influence that auditors play in the audit process (Wu et al., 2023). Manita et al. (2020) looked into how digitalization affected audit firms and what it meant for their interaction with the corporate governance of audited firms. The results of the study indicate that digitization will boost the emergence of new audit services while simultaneously enhancing the quality of the process. Additionally, Zahmatkesh and Rezazadeh (2017) explore, from the auditors' point of view, the impact of professional competence, job experience, motivation, accountability, and objectivity on the auditing process. According to the study's findings, the auditor's objectivity, responsibility, and professional skill all have a big impact on the audit quality (Zahmatkesh & Rezazadeh, 2017). Also, Shbeilat (2024), audit committees are crucial when taking into account the technological proficiency and industry expertise of external auditors. Findings, the external auditor was thought to possess the highest technical proficiency in discernment and judgment (Shbeilat, 2023). Furthermore, Li et al. (2023) examined the impact of shifting from on-site to digital (remote) audits on audit success, namely audit quality, audit efficiency, and auditors' job satisfaction. The findings demonstrate that high audit efficiency is a result of working remotely. Additionally, remote audit quality and efficiency result from auditors' flexible management skills (Li et al., 2023). According to Eulerich et al. (2023), auditors strongly perceive that technology-based audit techniques (TBATs) enhance their efficiency and effectiveness. So, as Wes Bricker, Vice Chair — Assurance Leader, PwC US, said, "automation is how technology can harness points in the audit process to achieve synergy between our people and the machines that they use so that the sum is greater than those individual parts" (PwC, n.d.). Responding to shifting business conditions with a creative mindset improves auditing and produces a more well-rounded professional (PwC, n.d.).

In order to face the challenges presented by novel audit procedures in the digital era, Leocádio et al. (2025) want to gain a thorough understanding of how auditor competencies can be developed. A systematic literature review was carried out. The findings highlight how crucial it is for auditors to embrace technological agility, improve their professional competencies, and support continuous professional development programs. Innovative audit techniques are based on the triadic framework of auditors, auditing procedures, and digital audits, according to the study's conclusions (Leocádio et al., 2025). The transition of advanced technology is also covered, setting the stage for the development of auditing procedures.

Furthermore, the personal qualities, general knowledge, and specialized skills of an auditor boost an auditor's professional competence and provide a higher-quality audit (Zahmatkesh & Rezazadeh, 2017). Perner and Werr (2024) discuss how digitalization will change the future of work in professional service firms (PSFs) and how they can adapt to new technology and avoid potential disruption for Sweden's Big Four auditing firms. The valuable contribution to the field of study on the future of PSFs by dissecting the mechanism by which PSFs broaden their purview to include technology and counterbalance innovations with transformative innovations that foster competence (Perner & Werr, 2024) through three overlapping sub-processes: skill acquisition, skill dissemination, and skill integration. In light of these insights, the research develops the following hypothesis:

H1: A positive association exists between technical skills and enhancing the quality of audit outcomes.

2.2. Digital skills and quality of audit outcomes

According to PwC's digital audit platform, auditors are using their sophisticated technological skills to accomplish far more with their accounting knowledge than they had previously thought. Therefore, enhancing the digital skills of financial auditors contributes to improving the audit experience and quality (PwC, n.d.). According to Rahman and Ziru (2023), auditors with information technology expertise reduce audit risk and improve audit quality. On the other hand, the auditing industry has seen significant changes due to the introduction of digital technology and the growing use of artificial intelligence (Alhumoudi & Juayr, 2023). Therefore, supporting digital proficiencies and enhancing auditors' skills stand as pivotal prerequisites for attaining creativity and collegiality in the field of auditing. Lohapan (2021) looks into how digital accounting affects audit performance. The study's findings demonstrate the significant impact of digital accounting on audit performance, audit reports, and audit competency. Audit performance is also impacted by audit expertise and audit reports. Alhumoudi and Juayr (2023) also look at the effects of digital technologies on audit efficacy and efficiency, changing auditors' responsibilities, and ethical and legal issues arising from the integration. The results show a positive correlation between the degree of digital transformation and the use of artificial intelligence in auditing procedures. However, notable obstacles to overcome include concerns about a skills gap and

technological infrastructure (Alhumoudi & Juayr, 2023). Also, Fotoh and Lorentzon (2023) indicate that digital technologies have the capacity to improve internal controls and expedite the prevention and detection of fraud, thereby reducing the disparity in expectations concerning these crucial matters. In addition, Al Shbail et al. (2023) look into how auditors' intentions to use blockchain technology are impacted by technological pressures. The findings show that behavioral goals, perceived utility, and ease of use can all significantly affect attitudes toward blockchain adoption decisions (Al Shbail et al., 2023). They concluded that management of audit firms, accountants, and auditors may find the study's findings helpful in their work.

On the other hand, the United States contributes significantly by analyzing the effects of remote work, the difficulties in implementing blockchain, the digital transformation of auditing, and automated auditing procedures (Eulerich et al., 2022, as cited in Leocádio et al., 2025). In the discussion of digital transformation in auditing, the United Kingdom plays a significant role by emphasizing novel methods, digital tools, and institutional frameworks (Busanelli de Aquino et al., 2022). So, the use of technology-based audit methodologies by auditors and their effects on audit effectiveness and efficiency are examined by Eulerich et al. (2023). The study confirms the concerns expressed by audit technology supporters and detractors and offers empirical evidence to support their decision-making about the future of these tools (Eulerich et al., 2023). That reveals that corporate performance and audit quality are positively related to auditor creativity via the auditor's self-efficacy. Chan and Vasarhely (2011) show that the faster and more efficient audit process made possible by technology and automation allows for more frequent real-time audits, improving the reliability of real-time financial information. Ridzuan et al. (2022) examined whether an individual's personality attributes, digital technological abilities, and expertise help external auditors identify fraud risk more creatively. Findings show that while personality traits and competency do not affect the efficacy of fraud risk assessment, digital technological capabilities do noting that the availability of technical and technological skills is a prerequisite for auditors' creativity. Along with an inventive understanding of quantitative techniques relevant to the auditing industry (Mat Ridzuan et al., 2022). Additionally, the availability of technical and technological skills is a prerequisite for auditors' creativity and creative comprehension of quantitative methods pertinent to the auditing industry. In light of these insights, the research develops the following hypothesis:

H2: A positive association exists between digital skills and the quality of audit outcomes.

2.3. Creativity skills and enhancing the quality of audit outcomes

Creativity in accounting is now seen as a required ability and competence for the field due to globalization and the rapid advancement of technology. However, it has previously been seen negatively (Meredith et al., 2022). Taylor's (1988)

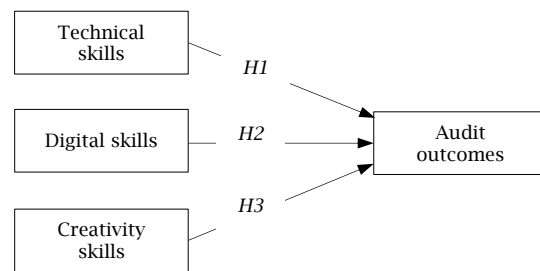
definition of creativity, a mental activity that involves the creation of new ideas or concepts or new linkages between preexisting ideas or concepts to obtain an understanding of the function of creativity among the auditors (Herron & Cornell, 2021). The creative industries (individual competency) function has expanded over the past ten years to become a significant component of the economic system (Mietzner & Kamprath, 2013). Also, the dynamic of the creative industries was significantly impacted by the increasing rapidity of new information communication technology (ICT) advances, which also had an immediate effect on the productivity of those employed in this field (Mietzner & Kamprath, 2013). In another study, to better understand the advantages and disadvantages of incorporating big data analytics into audit practice, Rosnidah et al. (2022) will examine how auditors use big data analytics to identify and stop fraud in their audit work. This study presents findings and suggestions for enhancing data analytics methods, such as deep neural networks, strategic analysis, and operational analysis, for fraud detection and prevention (Rosnidah et al., 2022).

It has been proposed that the creative accumulation theory is particularly appropriate for examining digital transformation since it explains ongoing innovation as a result of new technology (Hanelt et al., 2021). Also, creativity, the ability to come up with original, practical concepts, is frequently seen as the key to successful organizational innovation (Liu et al., 2022). According to Arens et al. (2011), identifying errors reflects an auditor's skill, while reporting errors reflects an auditor's ethics or integrity, especially their independence. Also, recent company failures worldwide have highlighted the need to make clear and strengthen the role of creativity towards auditors in responding to fraud and suspected fraud to increase public trust in financial reporting (IAAEB, 2025). Herron and Cornell (2021) investigate the relationship between elements of creativity and auditors' detection of and reactions to fraud risk cues. According to the findings, auditors' creative ideation, which is defined as their ability to think impromptu, tolerate uncertainty and unpredictability, and be open-minded, is linked to their responses to perceived fraud risk cues more than just their recognition of these cues. Also, it enhances the quality of financial reporting and audits (Herron & Cornell, 2021). Herron and Cornell (2021) indicate that auditor creativity is an improvisational thinking style, tolerance for unpredictability and ambiguity, and open-mindedness. Also, auditor creative ideation is linked to responses to fraud risk cues that contribute to the possibility of enhancing audits (Herron & Cornell, 2021). In light of these insights, the research develops the following hypothesis:

H3: A positive association exists between creativity skills and enhancing the quality of audit outcomes.

Based on the hypotheses above, the proposed study model allows for exploring the relationship between the auditor's technical, digital, and creativity skills and audit outcomes (Figure 1).

Figure 1. The study's model



3. RESEARCH METHODOLOGY

The research methodology states that although the questionnaire survey method was selected due to its effectiveness in collecting data from a broad spectrum of respondents, a number of other approaches might also be appropriate for this study, such as interviews that permit in-depth responses. A questionnaire was utilized to gather data from the study sample, which consisted of 263 local auditors in Jordan. It was reviewed by several professionals in the field of auditing and several academics specialized in the science of auditing. The target population for this study consists of external local auditors in Jordan. In Jordan, 312 auditors received questionnaires, 263 questionnaires were returned and could be used for analysis, which states that an appropriate response rate. A Likert scale with a range of 1 to 5 was used in the data analysis, which helped to capture the subtleties of the participants' points of view. The questionnaire addressed four fundamental axes: 1) the technical skills; 2) the digital skills; 3) the creative skills of the auditor; 4) the audit outcomes. It was measured using various research sources (Appendix, Table A.1).

As an analysis of the demographic indices of respondents, the age distribution of the respondents was as follows: 47% were between the ages of 35 and 45, and an additional 33% were over 45. Also, men comprised 92% of the participants, making up the majority in terms of gender. The distribution of educational backgrounds was varied, with 31% having finished Master's and PhD programs in business-related subjects and 69% holding bachelor's degrees. Regarding actual work experience, 44% of participants reported having a plethora of experience spanning from 10 to less than 15 years, while 25% had more than 15 years of experience. Thirteen per cent of those surveyed claimed to have five to fewer than 10 years of experience. Just 10% of the remaining responders had less than ten years of experience. This cohort's practical experience emerges as a driving force in their pursuit of creativity to enhance quality audit digitalization goals. Furthermore, the responders hold professional credentials, both domestic and international. Forty-two per cent possess the International Auditor Certificate, and 62% possess the Jordanian Chartered Accountant Certificate, which grants permission to conduct audits in Jordan.

4. RESULTS

4.1. Descriptive analysis

The standard deviation (SD) and mean values for each item in the study model. The obtained findings are predicated on a questionnaire with a five-point Likert scale, spanning from 1 to 5. According to Kwateng and Darko (2017), the scale can be changed into the interval class 1–1.8 = very low; 1.81–2.60 = low; 2.61–3.40 = moderate; 3.41–4.20 = high; 4.21–5.00 = very high to make it easier to read the item means. The sample study agreed on all items related to the auditor's technical, digital, and creativity skills, as they play a major role in supporting audit outcomes. The results indicate that the mean for technical skills is 3.27, SD is 0.86, for digital skills is 3.22, and SD is 0.77, and the mean for creativity skills is 3.44, and SD is 1.05. Also, the mean for technical skills is 3.51, and SD is 0.71.

4.2. Model reliability and validity

The external loadings of the constructs used in this paper confirm their contribution to the measurement model's validity and reliability. They strongly support the measurement model's validity and reliability, guaranteeing the data's

robustness for ensuing predictive modeling and path analysis. Using Cronbach's alpha, internal consistency reliability was assessed. It is predicated on the idea that each indicator ought to have equal loading on each of its corresponding constructions. Strong internal consistency and dependability were indicated by the study's consistently high Cronbach's alpha values for all variables. No Cronbach's alpha value was more than one or less than 0.70. Also, the methodology known as average variance extracted (AVE), which was first presented by Fornell and Larcker in 1981, was utilized to evaluate convergent validity. It guarantees the accuracy of each indicator of a particular construct in relation to the underlying construct. Convergent validity was confirmed by the AVEs for each construct in this investigation, above 0.5 for the respective indicators, as Table 1 illustrates. Also, to gauge how closely the measurement indicators connect to their respective conceptions, the reliability of each indicator was considered. High loading values show that the underlying structure explains a significant amount of the indicator variance. Although a recommended external load value of 0.708 or higher is preferable, most of the time, a value of 0.7 is deemed acceptable because it is so close to the recommended limit.

Table 1. Reliability and validity

Construct	Items	Loading	Cronbach's alpha	AVE	CR
Technical skills (TS)	TS-1	0.743	0.861	0.648	0.804
	TS-2	0.701			
	TS-3	0.769			
	TS-4	0.714			
	TS-5	0.847			
	TS-6	0.717			
Digital skills (DS)	DS-1	0.831	0.771	0.624	0.817
	DS-2	0.871			
	DS-3	0.770			
	DS-4	0.751			
	DS-5	0.793			
	DS-6	0.749			
	DS-7	0.832			
	DS-8	0.811			
Creativity skills (CS)	CS-1	0.822	0.746	0.579	0.785
	CS-2	0.714			
	CS-3	0.804			
	CS-4	0.784			
	CS-5	0.707			
	CS-6	0.711			
	CS-7	0.843			
	CS-8	0.727			
Audit outcomes (AO)	AO-1	0.844	0.667	0.603	0.871
	AO-2	0.821			
	AO-3	0.789			
	AO-4	0.741			
	AO-5	0.753			
	AO-6	0.792			
	AO-7	0.713			
	AO-8	0.864			
	AO-9	0.761			
	AO-10	0.742			

4.3. Discriminant validity

To evaluate discriminant validity, an important component of measurement model analysis is the Fornell and Larcker (1981) criterion and the heteroscedasticity-monometric (HTMT) correlation ratio by Henseler et al. (2015). To ensure discriminant validity, the HTMT threshold value should be less than 0.90. Overall, the measurement model analysis of discriminant validity results shows that the study's constructs exhibit discriminant validity, meaning that they are unique

and accurately capture various facets of the underlying constructs. This supports the measurement model's robustness and the data quality for subsequent analyses (Table 2).

Table 2. Discriminant validity

Construct	TS	DS	CS	AO
TS	0.864			
DS	0.721	0.781		
CS	0.671	0.641	0.823	
AO	0.667	0.603	0.724	0.871

5. DISCUSSION

The proposed hypotheses were tested using SmartPLS to implement the variance-based partial least squares (PLS) approach (Hair et al., 2017).

Regarding the technical skills ($\beta = 0.587$, $t = 13.102$, p -value less than 0.05), the study results add novelty to the literature. It is confirmed that technical skills positively enhance the quality of audit outcomes. This indicates that the technical abilities of the external auditor, including the ability to interact constructively, communicate with others, participate in networks and online communities, and use online tools, as well as the ability to integrate and reformulate content and prior knowledge to create new knowledge, have a positive effect on the quality of audit results. The quality of audit results is also greatly impacted by the ability to act morally and the knowledge of legal frameworks. Operating system skills and financial program expertise are also regarded as skills that affect the caliber of audit findings. So, the results indicate that all the previous technical competency items impact the quality of audit outcomes. Thus, *H1* is accepted.

Regarding the digital skills ($\beta = 0.614$, $t = 11.317$, p -value less than 0.05), the study results add novelty to the literature. It is confirmed that digital skills positively enhance the quality of audit outcomes. This indicates that the external auditor's digital skills have a positive effect on the quality of audit results. These skills include the ability to use technology and media to perform tasks through digital tools, leverage new technologies, combine technical expertise, critical thinking, big data analysis, and advanced data analysis capabilities (such as data mining and data analytics), and utilize technology-enabled methods to audit more cost-effectively. The quality of audit results is also significantly impacted by the ability to deliver audit reports utilizing graphics, interactive reporting tools, and novel visualization techniques, as well as by knowledge of the channels and methods used for information presentation and publication. The skills of identifying digital needs, solving problems through digital means, and evaluating the information retrieved also play a tactical role in the quality of audit performance results. This indicates that digital skills play a pivotal role in enhancing the quality of audit outcomes, especially in light of the digital age in which we live. Thus, *H2* is accepted.

Previous studies have proven the validity of *H1* and *H2*. DeFond and Zhang (2014) point out that an auditor's competency is to present high-quality audits. Also, according to Zahmatkesh and Rezazadeh (2017), hiring individuals with extensive experience improves the professional competence of the auditor and helps them attain audit quality by

giving them a deeper understanding and better judgment. Also, Sukriah et al. (2009) found that audit quality is influenced by the work experience, independence, objectivity, integrity, and professional competence of the auditors. Wu et al. (2023) shed light on the significance of auditors' assignment decisions within the audit firm. More education, training, and information expenses are being allocated to them to achieve audit quality. Furthermore, when competent and independent individuals carry out audit tests, audits are of higher quality at the input level (Francis, 2024). Thus, the quality of audit inputs influences the quality of the audit process. Finally, a well-established premise in audit research is that an auditor's competence and independence determine the audit outcomes (Francis, 2011).

Regarding the creativity skills ($\beta = 0.601$, $t = 12.241$, p -value less than 0.05), the results of the descriptive analysis also showed that creative work links with audit outcomes. This is because regular work for the auditor fosters creativity and encourages the exploration of novel ideas and consistent task completion in ways that benefit the auditor, going a long way toward sustaining audit quality. Digitalization in auditing is positively supported by the auditor's ability to solve new problems within their department cleverly and creatively, search for possible innovations and improvements, and create and assess different options. Additionally, auditor creativity stems from coming up with fresh approaches to well-worn issues and creating solutions where there are none. Also, creative skills are extremely important in supporting audit outcomes. An auditor with these skills, being able to come up with creative ideas, try out new concepts and ideas, carry out tasks in a resourceful manner, and solve problems cleverly and innovatively, contributes to the outcomes of the audit. Therefore, the results of the hypothesis that creativity skills are directly and efficiently related to audit outcomes are supported by the creativity of auditors. Thus, *H3* is accepted. Previous studies have proven the validity of *H3*. Fotoh and Lorentzon (2023) show that adopting a constructive approach to audit digitalization also results in reduced audit firms' expenses, better audit quality, and better customer opinions of auditors. Also, according to Herron and Cornell's (2021) research, there is a correlation between auditors' creativity and their ability to identify and react to fraud indicators. Furthermore, Rahman and Ziru (2023) indicate that the information technology expertise of auditors lowers audit risk and raises audit quality. Therefore, as shown in Table 3, creative auditing is essential for improving corporate performance (Boedker & Chong, 2022; Liu et al., 2022).

Table 3. Hypotheses testing

Hypotheses	Path	Path coefficient	T-value	p-value	Result
H1	TS → AO	0.587	13.102	0.000	Supported
H2	DS → AO	0.614	11.317	0.000	Supported
H3	CS → AO	0.601	12.241	0.000	Supported

6. CONCLUSION

While earlier studies have examined the direct effects of auditor competencies on audit quality, the current study investigates the auditor's

technical, digital, and creativity skills and their role in supporting audit outcomes in light of digital transformation. The current research offers new insights into the underlying mechanisms that connect technical skills, digital skills, and creativity

skills with audit outcome quality. The results emphasize the need for a more comprehensive view of these skills that chart the right path for the auditor's work, especially in light of digital transformations. The study's conclusions demonstrate a favorable correlation between auditors' technical, digital, and creativity skills and the quality of audit outcomes. It was confirmed that technical skills positively enhance the quality of audit results. This means that the more the auditor can interact constructively and communicate with others, integrate and reformulate content and previous knowledge to create new knowledge and operating system skills, the more they support the quality of audit results. In addition, it was confirmed that digital skills positively enhance the quality of audit results. This indicates that the digital skills of the external auditor positively affect the quality of audit results. Whether it is related to the skills and the ability to use technology and media to perform tasks through digital tools, take advantage of new technologies, or combine technical expertise, critical thinking, big data analysis, or advanced data analysis capabilities. The results also concluded that creative work is associated with audit results. This is because the auditor's regular work enhances creativity, encourages the exploration of new ideas, and consistently completes tasks in ways that benefit the auditor, which goes a long way toward sustaining audit quality.

As a future implication, the research provides skills strategies for external auditors to enhance the quality of audit results and performance through skill development, especially in light of current

technological developments. With a focus on developing technical, digital, and creative skills, which have become increasingly essential in the modern economy, the findings suggest that external auditors become a critical lever for enhancing the quality of audit results when aligned with these skills. Also, as a study contribution, in Jordan, a developing country, this subject has to be extensively investigated in the scientific literature about auditing firms in general. Second, it provides empirical support for the notion that an auditor's technical, digital, and creativity skills are critical to improving the audit outcomes in relation to knowledge, ethics, and skill sharing. Third, this study provides insights into areas where audit firm management might focus and enhance their investments in the abilities and creativity of auditors as drivers of better audit quality in light of the digital transition. Furthermore, certain limitations of the current study might motivate more research in the future. First, only small and medium-sized audit firms were included in this study. Future research might look at how digitization affects audit outcomes in major audit companies. Second, 263 observations from auditors at small and medium-sized audit companies in Jordan were used to test the study model. As a result, additional research on the study model should be done using large samples from different nations. Due to the favorable effects of new digital technologies on the caliber of digital auditing and their ability to improve the financial standing of businesses, Jordanian companies, particularly small and medium-sized ones, did not fully capitalize on these advantages.

REFERENCES

- Al Shbail, M. O., Bani-Khalid, T. O., Ananzeh, H., Al-Hazaima, H., & Al Shbail, A. (2023). Technostress impact on the intention to adopt blockchain technology in auditing companies [Special issue]. *Journal of Governance & Regulation*, 12(3), 285-294. <https://doi.org/10.22495/jgrv12i3siart10>
- Alhumoudi, H., & Juayr, A. (2023). Exploring the impact of artificial intelligence and digital transformation on auditing practices in Saudi Arabia: A cross-sectional study. *Asian Journal of Finance & Accounting*, 15(2). <https://doi.org/10.5296/ajfa.v15i2.18976>
- Allbabidi, M. H. A. (2021). Hype or hope: Digital technologies in auditing process. *Asian Journal of Business and Accounting*, 14(1). <https://doi.org/10.22452/ajba.vol14no1.3>
- Almaleeh, N. M. S. (2021). The impact of digital transformation on audit quality: Exploratory findings from a Delphi study. *Science Journal for Commercial Research*, 3, 10-36. https://www.researchgate.net/publication/354751210_The_Impact_of_Digital_Transformation_on_Audit_Quality_Exploratory_Findings_from_a_Delphi_Study
- Arens, A. A., Best, P., Shailer, G., Fidler, B., Elder, R. J., & Beasley, M. S. (2011). *Auditing assurance services in Australia: An integrated approach* (8th ed.). Pearson.
- Australian Securities and Investments Commission (ASIC). (n.d.). *Financial reporting and audit*. <https://asic.gov.au/regulatory-resources/financial-reporting-and-audit/>
- Association of Chartered Certified Accountants (ACCA). (n.d.). *Audit quality — IAASB's framework*. <https://www.accaglobal.com/ubcs/en/technical-activities/technical-resources-search/2014/march/audit-quality-iaasb-frwk.html>
- Barr-Pulliam, D., Calvin, C. G., Eulerich, M., & Maghakyan, A. (2024). Audit evidence, technology, and judgement: A review of the literature in response to ED-500. *Journal of International Financial Management & Accounting*, 35(1), 36-67. <https://doi.org/10.1111/jifm.12192>
- Boedker, C., & Chong, K. M. (2022). The mediating role of accounting controls between supervisors' empowering leadership style and subordinates' creativity and goal productivity. *Accounting & Finance*, 62(4), 4587-4614. <https://doi.org/10.1111/acfi.13009>
- Brown-Liburd, H., Issa, H., & Lombardi, D. (2015). Behavioral implications of big data's impact on audit judgment and decision making and future research directions. *Accounting Horizons*, 29(2), 451-468. <https://doi.org/10.2308/acch-51023>
- Busanelli de Aquino, A. C., Lino, A. F., Rocha Azevedo, R., & da Silva, P. B. (2022). Digital affordances and remote public audit practice. *Financial Accountability and Management*, 38(3), 447-467. <https://doi.org/10.1111/faam.12337>
- Chan, D. Y., & Vasarhelyi, M. A. (2011). Innovation and practice of continuous auditing. *International Journal of Accounting Information Systems*, 12(2), 152-160. <https://doi.org/10.1016/j.accinf.2011.01.001>
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 83-199. [https://doi.org/10.1016/0165-4101\(81\)90002-1](https://doi.org/10.1016/0165-4101(81)90002-1)

- DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2-3), 275-326. <https://doi.org/10.1016/j.jacceco.2014.09.002>
- Eulerich, M., Masli, A., Pickerd, J., & Wood, D. A. (2023). The impact of audit technology on audit task outcomes: Evidence for technology-based audit techniques. *Contemporary Accounting Research*, 40(2), 981-1012. <https://doi.org/10.1111/1911-3846.12847>
- Eulerich, M., Pawlowski, J., Waddoups, N. J., & Wood, D. A. (2022). A framework for using robotic process automation for audit tasks. *Contemporary Accounting Research*, 39(1), 691-720. <https://doi.org/10.1111/1911-3846.12723>
- Ferrari, A., Punie, Y., & Redecker, C. (2012). Understanding digital competence in the 21st century: An analysis of current frameworks. In A. Ravenscroft, S. Lindstaedt, C. D. Kloos, & D. Hernández-Leo (Eds.), *21st century learning skills* (pp. 79-92). Springer. https://doi.org/10.1007/978-3-642-33263-0_7
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.2307/3151312>
- Fotoh, L. E., & Lorentzon, J. I. (2023). Audit digitalization and its consequences on the audit expectation gap: A critical perspective. *Accounting Horizons*, 37(1), 43-69. <https://doi.org/10.2308/HORIZONS-2021-027>
- Francis, J. R. (2011). A framework for understanding and researching audit quality. *Auditing: A Journal of Practice & Theory*, 30(2), 125-152. <https://doi.org/10.2308/ajpt-50006>
- Francis, J. R. (2024). What exactly do we mean by audit quality? *Accounting in Europe*, 21(2), 123-133. <https://doi.org/10.1080/17449480.2023.2247410>
- Hair, J. F., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442-458. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Hanelt, A., Bohnsack, R., Marz, D., & Marante, C. A. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of Management Studies*, 58(5), 1159-1197. <https://doi.org/10.1111/joms.1263>
- Henseler, J., Ringle, C. M. & Sarstedt, M. A. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Herron, E. T., & Cornell, R. M. (2021). Creativity amidst standardization: Is creativity related to auditors' recognition of and responses to fraud risk cues? *Journal of Business Research*, 132, 314-326. <https://doi.org/10.1016/j.jbusres.2021.04.018>
- Igou, A., Power, D. J., Brosnan, S., & Heavin, C. (2023). Digital futures for accountants. *Journal of Emerging Technologies in Accounting*, 20(1), 39-57. <https://doi.org/10.2308/JETA-2020-088>
- International Auditing and Assurance Standards Board (IAASB). (2025). *A framework for audit quality*. The International Federation of Accountants (IFAC). <https://www.iaasb.org/publications/framework-audit-quality-2>
- Johari, R. J., Ridzoan, N. S., & Zarefar, A. (2019). The influence of work overload, time pressure and social influence pressure on auditor's job performance. *International Journal of Financial Research*, 10(3), 88-106. <https://doi.org/10.5430/ijfr.v10n3p88>
- Kogan, A., Mayhew, B. W., & Vasarhelyi, M. A. (2019). Audit data analytics research — An application of design science methodology. *Accounting Horizons*, 33(3), 69-73. <https://doi.org/10.2308/acch-52459>
- Kokina, J., Gilleran, R., Blanchette, S., & Stoddard, D. (2021). Accountant as digital innovator: Roles and competencies in the age of automation. *Accounting Horizons*, 35(1), 153-184. <https://doi.org/10.2308/HORIZONS-19-145>
- Kwateng, K. O., & Darko, J. E. (2017). Total quality management practices in aquaculture companies: A case from Ghana. *The TQM Journal*, 29(4), 624-647. <https://doi.org/10.1108/TQM-03-2017-0027>
- Leocádio, D., Malheiro, L., & dos Reis, J. C. G. (2025). Auditors in the digital age: A systematic literature review. *Digital Transformation and Society*, 4(1), 5-20. <https://doi.org/10.1108/DTS-02-2024-0014>
- Li, Y., Goel, S., & Williams, K. (2023). Impact of remote audit on audit quality, audit efficiency, and auditors' job satisfaction. *The International Journal of Auditing*, 27(2-3), 130-149. <https://doi.org/10.1111/ijau.12306>
- Liu, C.-L., & Lai, S.-M. (2012). Organizational complexity and auditor quality. *Corporate Governance: An International Review*, 20(4), 352-368. <https://doi.org/10.1111/j.1467-8683.2012.00914.x>
- Liu, F., Li, P., Taris, T. W., & Peeters, M. C. W. (2022). Creative performance pressure as a double-edged sword for creativity: The role of appraisals and resources. *Human Resource Management*, 61(6), 663-679. <https://doi.org/10.1002/hrm.22116>
- Lohapan, N. (2021). Digital accounting implementation and audit performance: An empirical research of tax auditors in Thailand. *The Journal of Asian Finance, Economics and Business*, 8(11), 121-131. <https://doi.org/10.13106/jafeb.2021.vol8.no11.0121>
- Lugli, E., & Bertacchini, F. (2023). Audit quality and digitalization: some insights from the Italian context. *Meditari Accountancy Research*, 31(4), 841-860. <https://doi.org/10.1108/MEDAR-08-2021-1399>
- Manita, R., Elommal, N., Baudier, P., & Hikkerova, L. (2020). The digital transformation of external audit and its impact on corporate governance. *Technological Forecasting and Social Change*, 150, Article 119751. <https://doi.org/10.1016/j.techfore.2019.119751>
- Mat Ridzuan, N. I., Said, J., Razali, F. M., Abdul Manan, D. I., & Sulaiman, N. (2022). Examining the role of personality traits, digital technology skills and competency on the effectiveness of fraud risk assessment among external auditors. *Journal of Risk and Financial Management*, 15(11), Article 536. <https://doi.org/10.3390/jrfm15110536>
- Melin, C., & Toezay, G. (2022). *The effects of digitalization on the audit profession — A comparative study between one developed and one developing country* [Master thesis, Kristianstad University]. Kristianstad University Research Portal. https://researchportal.hkr.se/ws/portalfiles/portal/44024928/The_effects_of_digitalization_on_the_audit_profession_.pdf
- Meredith, K., Baxter, P., & Anwar, S. (2022). In search of the creative accountants: An investigation of creativity variation in regional accounting firms. *Australasian Accounting, Business and Finance Journal*, 16(3), 3-20. <https://doi.org/10.14453/aabfj.v16i3.02>
- Mietzner, D., & Kamprath, M. (2013). A competence portfolio for professionals in the creative industries. *Creativity and Innovation Management*, 22(3), 280-294. <https://doi.org/10.1111/caim.12026>

- Moulang, C. (2015). Performance measurement system use in generating psychological empowerment and individual creativity. *Accounting and Finance*, 55(2), 519–544. <https://doi.org/10.1111/acfi.12059>
- Pacific Association of Supreme Audit Institutions (PASAI). (2024). *Digital literacy: Relevance to auditors and SAIs*. <https://www.intosaiabc.org/wp-content/uploads/2020/12/PASAI-Digital-Literacy-blog.pdf>
- Pemer, F., & Werr, A. (2024). Defusing digital disruption through creative accumulation: Technology-induced innovation in professional service firms. *Journal of Management Studies*. Advance online publication. <https://doi.org/10.1111/joms.12972>
- PricewaterhouseCoopers (PwC). (n.d.). *How auditors combine tech know-how and finance skills to drive innovation*. <https://www.pwc.com/us/en/tech-effect/automation/audit-technology-and-digital-skills.html>
- Rahman, M. J., & Ziru, A. (2023). Clients' digitalization, audit firms' digital expertise, and audit quality: Evidence from China. *International Journal of Accounting & Information Management*, 31(2), 221–246. <https://doi.org/10.1108/IJAIM-08-2022-0170>
- Rikhardsson, P., Thöriss, K. R., Bergthorsson, G., & Batt, C. (2022). Artificial intelligence and auditing in small- and medium-sized firms: Expectations and applications. *AI Magazine*, 43(3), 323–336. <https://doi.org/10.1002/aaai.12066>
- Rosnidah, I., Johari, R. J., Mohd Hairudin, N. A., Hussin, S. A. H. S., & Musyaffi, A. M. (2022). Detecting and preventing fraud with big data analytics: Auditing perspective. *Journal of Governance & Regulation*, 11(4), 8–15. <https://doi.org/10.22495/jgrv11i4art1>
- Schmitz, J., & Leoni, G. (2019). Accounting and auditing at the time of blockchain technology: A research agenda. *Australian Accounting Review*, 29(2), 331–342. <https://doi.org/10.1111/auar.12286>
- Shbeilat, M. K. (2023). Contributors to audit committee effectiveness: An experimental study of external auditors' perception [Special issue]. *Corporate Governance and Organizational Behavior Review*, 7(3), 291–306. <https://doi.org/10.22495/cgobrv7i3sip6>
- Shbeilat, M. K. (2024). Mechanisms for appointing and enhancing the independence of the auditor. *Corporate & Business Strategy Review*, 5(1), 175–191. <https://doi.org/10.22495/cbsrv5i1art17>
- Siriwardane, H. P., Hoi Hu, B. K., & Low, K. Y. (2014). Skills, knowledge, and attitudes important for present-day auditors. *International Journal of Auditing*, 18(3), 193–205. <https://doi.org/10.1111/ijau.12023>
- Spreitzer, G. M., De Janasz, S. C., & Quinn, R. E. (1999). Empowered to lead: The role of psychological empowerment in leadership. *Journal of Organisational Behaviour*, 20(4), 511–526. [https://doi.org/10.1002/\(SICI\)1099-1379\(199907\)20:4%3C511::AID-JOB900%3E3.0.CO;2-L](https://doi.org/10.1002/(SICI)1099-1379(199907)20:4%3C511::AID-JOB900%3E3.0.CO;2-L)
- Sukriah, I., Akram, D., & Inapty, A. (2009). *Pengaruh pengalaman kerja, independensi, obyektifitas, integritas dan kompetensi terhadap kualitas hasil pemeriksaan* [The influence of work experience, independence, objectivity, integrity and competence on the quality of audit results] [Paper presentation]. The 12th National Accounting Symposium, Sriwijaya University, Palembang, Indonesia. <https://smartaccounting.wordpress.com/wp-content/uploads/2011/03/pengaruh-pengalaman-kerja-independensi-obyektifitas-integritas-dan-kompetensi-thd-kualitas-hasil-pemeriksaan.pdf>
- Szafir, M. F. (2024). Digital transformation enabled by big data. In G. Giannattasio, E. Kongar, M. Dabić, C. Desmond, M. Condry, S. Koushik, & R. Saracco (Eds.), *IEEE technology and engineering management society body of knowledge (TEMSBOK)* (pp. 297–329). The Institute of Electrical and Electronics Engineers, Inc. <https://doi.org/10.1002/9781119987635.ch18>
- Taylor, S. W. (1988). Various approaches to and definitions of creativity. In R. J. Sternberg (Ed.), *The nature of creativity: Contemporary psychological perspectives* (pp. 99–121). Cambridge University Press.
- Thottoli, M. M., Ahmed, E. R., & Thomas, K. V. (2022). Emerging technology and auditing practice: Analysis for future directions. *European Journal of Management Studies*, 27(1), 99–119. <https://doi.org/10.1108/EJMS-06-2021-0058>
- Veerankutty, F., Ramayah, T., & Ali, N. A. (2018). Information technology governance on audit technology performance among Malaysian public sector auditors. *Social Sciences*, 7(8), Article 124. <https://doi.org/10.3390/socsci7080124>
- Wang, G., & Netemeyer, R. G. (2004). Salesperson creative performance: Conceptualization, measurement, and nomological validity. *Journal of Business Research*, 57(8), 805–812. [https://doi.org/10.1016/S0148-2963\(02\)00483-6](https://doi.org/10.1016/S0148-2963(02)00483-6)
- Wessels, P. L. (2005). Critical information and communication technology (ICT) skills for professional accountants. *Meditari Accountancy Research*, 13(1), 87–103. <https://doi.org/10.1108/10222529200500006>
- Wu, Y., Li, Z., Zhang, M., & Zhai, S. (2023). Auditor assignments and audit quality. *Australian Accounting Review*, 33(2), 160–187. <https://doi.org/10.1111/auar.12400>
- Zahmatkesh, S., & Rezazadeh, J. (2017). The effect of auditor features on audit quality. *TéKhne*, 15(2), 79–87. <https://doi.org/10.1016/j.tekhne.2017.09.003>

APPENDIX

Table A.1. Variables and measurement

<i>Variable</i>	<i>Item</i>	<i>Description</i>	<i>Source</i>
<i>Technical skills (TS)</i>	TS-1	Link with others, participate in online networks and communities, and interact constructively.	Ferrari et al. (2012), PASAI (2024)
	TS-2	Communicate through online tools, considering privacy, safety, and correct online behavior.	
	TS-3	Integrate and re-elaborate previous content and knowledge, and construct new knowledge.	
	TS-4	Behave ethically and responsibly, and be aware of legal frameworks.	
	TS-5	An auditor must be prepared to build capacity and promote learning and knowledge sharing within the PASAI.	
	TS-6	knowledge of operating systems and financial software.	
<i>Digital skills (DS)</i>	DS-1	Ability to leverage new technologies.	
	DS-2	Use technology and media to perform tasks through digital tools.	
	DS-3	Combining technical expertise and critical thinking.	
	DS-4	Big data analysis.	
	DS-5	Advanced data analytics capabilities (e.g., extraction of the data, performing analytics on the data).	
	DS-6	Being able to audit in a more cost-efficient manner by using technology-assisted methods.	
	DS-7	Using infographics, interactive reporting tools, and new visualization techniques to present audit reports and understand the methods and outlets in which information is published/presented.	
	DS-8	Identify digital needs, solve problems through digital means, and assess retrieved information.	
<i>Creativity skills (CS)</i>	CS-1	Come up with creative ideas.	Moulang (2015), Spreitzer et al. (1999), Wang and Netemeyer (2004)
	CS-2	Experiment with new concepts and ideas.	
	CS-3	Carry out tasks in resourceful ways.	
	CS-4	Engage in problem-solving in clever and creative ways.	
	CS-5	Search for innovations and potential improvements.	
	CS-6	Generate and evaluate multiple alternatives for novel problems.	
	CS-7	Generate fresh perspectives on old problems.	
	CS-8	Improvise problem-solving methods when an answer is not apparent.	
<i>Audit outcomes (AO)</i>	AO-1	Detect instances of major misstatements of an employer's financial and accounting system.	DeAngelo (1981), ASIC (n.d.), IAASB (2025)
	AO-2	Report the detection of a material misstatement.	
	AO-3	Verify that any significant flaws found are rectified or reported via the audit report.	
	AO-4	Satisfied the expectations of the audit clients.	
	AO-5	Gather audit evidence.	
	AO-6	Ability to identify and react to fraud indicators.	
	AO-7	Ensuring that the audit is completed as quickly as possible.	
	AO-8	Effective quality control.	
	AO-9	Provision of an auditor's opinion that provides users with confidence.	
	AO-10	Transparency regarding the prompt disclosure of inquiries and disciplinary actions.	