Journal of Quantitative Economics Studies | Volume 12, Number 01 (2026), PP.179-189 | EISSN: 2602-5183 * PISSN: 1033-2437

Digital Readiness of Master's Students in Finance and Accounting to Cope with Digital Transformation in the Auditing Profession in Algeria: Evidence from the University of Continuing Education (Touggourt Center)

Abdelheg BOUGOFFA [1,*], Abd ellah MAYOU [2], Elhadj ARABA [3]

[1] Kasdi Merbah University, Ouargla (Algeria) (Bougoffa1@gmail.com)
[2] Kasdi Merbah University, Ouargla (Algeria) (Mayouabdellah@gmail.com)
[3] Kasdi Merbah University, Ouargla (Algeria) (Araba.hadj@gmail.com)

Received: 25/03/2026; **Accepted:** 25/04/2026; **Publishing:** 01/06/2026

Summary: This study aims to assess the level of digital readiness among master's students in finance and accounting to cope with the ongoing digital transformation of the auditing profession in Algeria. The research addresses the gap between academic training and the digital skills required in modern auditing environments.

A descriptive-analytical approach was adopted for the theoretical framework, while a field study was conducted using a structured questionnaire distributed to a sample of 42 master's students at the University of Continuing Education (Touggourt Center) during the academic year 2025/2026. Data were analyzed using SPSS 26 to evaluate digital readiness levels and test the study hypotheses.

The findings reveal that students demonstrate a relatively high level of theoretical digital awareness. However, a significant gap exists between theoretical knowledge and practical digital competencies required in auditing practices. The results also indicate the need for strengthening applied digital training.

The study recommends integrating advanced digital technologies into accounting curricula, particularly in areas such as data analytics, artificial intelligence, and accounting information systems, to better align academic outcomes with labor market requirements.

Keywords: Digital Transformation; Digital Readiness; Auditing; Accounting Education; Algeria.

Jel Classification Codes : M42 ; O33 ; I23.

* Corresponding author

I- Introduction :

The rapid advancement of digital technologies has fundamentally altered the auditing profession, introducing new tools, methodologies, and competency benchmarks. Technological innovations—such as artificial intelligence (AI), blockchain, big data analytics, and cloud computing—have transitioned auditing workflows from traditional, manual sampling toward automated, real-time, and data-driven protocols. While this integration has elevated audit quality, operational efficiency, and reporting transparency, it has simultaneously increased the complexity of professional requirements.

In recent years, the implications of digitalization on auditing have been analyzed through both empirical and theoretical lenses. For instance, using a quantitative approach with N = 300 respondents and PLS-SEM modeling, Qader and Cek (2024) observed that blockchain and AI applications significantly improve audit quality by optimizing fraud detection and financial reporting reliability. Similarly, Abdullah and Almaqtari (2024) verified that AI, big data, and Industry 4.0 applications positively influence efficiency and strategic decision-making in accounting, based on a sample of 228 participants analyzed via SmartPLS.

From a systematic standpoint, Leocadio et al. (2024) conducted a literature review emphasizing the necessity for auditors to maintain technological flexibility and continuously upgrade their skills to navigate emerging digital tools. Lahsini and Taouab (2024) argued that professional profiles are evolving into hybrid competencies where traditional accounting principles must merge with technical data skills.

Studies have also addressed the operational risks and obstacles of digital auditing. Septarini and Ismanto (2024) noted that while AI allows auditors to analyze entire populations of data instead of samples, it raises critical concerns regarding algorithmic bias, accountability, and data privacy. Syam et al. (2025) linked continuous digital auditing with structural challenges, including cyber security vulnerabilities, high initial infrastructure costs, and a market shortage of digital talent. Furthermore, Ouhoud and El Ouafa (2025) identified systemic threats in data governance and over-reliance on automated algorithms, calling for sturdier regulatory and ethical frameworks. Conversely, Besseri and Saidi (2025) highlighted the utility of blockchain in lowering operational costs and increasing financial transparency, though they stressed the urgent need for specialized auditor training.

Despite the diverse scopes of these studies, they share core findings:

- (i) Digital technologies improve audit quality and efficiency;
- (ii) They introduce hidden security and governance risks;
- (iii) They demand advanced competencies beyond traditional bookkeeping.

Nevertheless, structural contrasts remain. Empirical treatments (e.g., Qader & Cek; Abdullah & Almaqtari) rely on quantitative methods and focus heavily on technological impact. Review-based studies (e.g., Leocadio et al.; Syam et al.) emphasize qualitative metrics such as skills, challenges, and professional transitions. Furthermore, the majority of current research targets firms, active auditors, or organizational contexts, with limited academic attention given to students as future professionals.

Consequently, a significant research gap emerges: the lack of empirical evaluations regarding the digital readiness of accounting and auditing students, particularly in developing contexts like Algeria. Evaluations must adopt a multidimensional perspective combining conceptual knowledge, applied skills, and the academic environment.

Based on this gap, the research problem is formulated as follows:

To what extent are master's students in finance and accounting at the University of Continuing Education (Touggourt Center) prepared to meet the requirements of digital transformation in the Algerian auditing profession?

To address this question, the study tests the following hypotheses:

- **H1:** Master's students demonstrate high theoretical digital readiness related to auditing.
- **H2:** Master's students lack the practical digital skills required in modern auditing.
- **H3:** A statistically significant relationship exists between digital readiness and professional adaptation.
- **H4:** Demographic characteristics generate significant differences in student readiness.

This study contributes to the literature by providing localized empirical evidence from the Algerian higher education sector, highlighting the gap between theoretical knowledge and operational competencies to guide future accounting pedagogy.

II. Theoretical Framework and Literature Review :

1. The Concept and Dimensions of Digital Transformation in Auditing:

In business contexts, digital transformation denotes a comprehensive and strategic change where organizations integrate advanced technologies to restructure internal and external workflows (Bouazza-Abid et al., 2026; Chergui & Salem, 2024). It transcends standard digitization—the simple conversion of physical documents into electronic files—by reengineering traditional operating models to generate sustainable value (Meraghni et al., 2021).In the auditing sector, this represents a structural transition from manual, sample-based, and retrospective verification to automated, continuous, and data-driven auditing (Bouazza-Abid et al., 2026). Recent academic literature highlights that this digital ecosystem relies on several interactive technological pillars:Artificial Intelligence (AI) and Machine Learning (ML): These tools process massive amounts of financial data, automate repetitive manual inputs, recognize continuous patterns, and isolate anomalies or fraudulent schemes (Abdullah & Almaqtari, 2024). AI upgrades professional audit performance quality by decreasing human oversight and expanding verification beyond traditional manual sampling (Qader & Cek, 2024; Septarini & Ismanto, 2024).Blockchain Technology: Operating as a decentralized, encrypted, and immutable digital ledger, blockchain ensures absolute data integrity and removes trust barriers (Besseri & Saidi, 2025). It facilitates real-time tracking of audit trails and shifts recording from classic double-entry to automated, shared, and tamper-resistant triple-entry systems (Zidane et al., 2025).Cloud Computing: Cloud platforms allow scalable storage of datasets and grant practitioners remote, flexible, and on-demand access to client ledgers from any location (Abdullah & Almaqtari, 2024). It reduces upfront physical hardware investments and lowers administrative maintenance costs (Chergui & Salem, 2024).Big Data Analytics: Dealing with unprecedented volumes of structured and unstructured information, big data analytics expands the very scope of audit evidence and supports complex predictive diagnostics (Zidane et al., 2025).

2. Digital Readiness and Modern Competencies in Auditing:

As auditing shifts into its smart generation, the definition of professional competency is being radically redefined. "Digital readiness" refers to the cognitive, psychological, and structural preparedness of practitioners or students to successfully embrace technological upgrades before entering the job market. To navigate this ecosystem, auditing literature segments these modern requirements into three distinct dimensions:

- **Cognitive Readiness (Theoretical Knowledge):** It measures students' conceptual understanding of how emerging automated systems intersect with traditional financial reporting standards and internal control frameworks.
- **Technical Agility (Applied Skills):** This represents the active capability to manipulate data queries (using tools like SQL, Python, or R) and execute tests via specialized computer-assisted audit software (CAATs).
- **Behavioral Mindset and Professional Skepticism:** It covers the psychological acceptance of technology while keeping a critical human eye on outputs. Human auditors must maintain an active stance to prevent over-reliance on algorithms, ensuring that human judgment remains the final deciding factor in interpreting context and nuances.

3. Risks and Challenges Facing Digital Audits:

While empirical evidence confirms that digital transformation elevates audit efficiency and output quality, it introduces complex vulnerabilities that academic institutions and auditing firms must manage (Bouazza-Abid et al., 2026). The current literature categorizes these localized obstacles as follows:

Data Governance and Algorithmic Bias: Modern algorithms depend entirely on data inputs. If the extracted dataset suffers from historical biases or flaws, AI will naturally yield skewed or non-compliant auditing results (Ouhoud & El Ouafa, 2025; Septarini & Ismanto, 2024).

Cybersecurity Exposure and Infrastructure Vulnerabilities: Operating within interconnected cloud networks widens the attack surface for data breaches. Weak security protocols place sensitive client financial disclosures at risk of hacks or severe leaks (Chergui & Salem, 2024; Zidane et al., 2025).

Structural Friction and Skills Gaps: Many organizations face internal cultural resistance to change (Zidane et al., 2025). This is compounded by a digital talent crunch where newly graduated accounting students exhibit a strong theoretical grasp of digital terms but fail to execute them practically due to traditional, non-updated university curricula (Lahsini & Taouab, 2024).

Therefore, building authentic digital readiness among master's students requires an immersive educational environment that fosters a harmonious synergy between human creativity, ethical standards, and algorithmic speed (Huy & Phuc, 2025; Leocadio et al., 2025).

III- Methods and Materials:

1. Research Philosophy and Overall Design:

This study is structured around a dual research design, integrating both descriptive-analytical and quantitative empirical approaches to examine the digital readiness of master's students in finance and accounting. The descriptive-analytical framework is deployed to explore the theoretical parameters of digital transformation and digital readiness in modern auditing environments. It reviews the systemic shift from manual, sample-based validation to automated, continuous, and data-driven auditing frameworks. This theoretical grounding establishes the conceptual foundations necessary to understand how advanced technologies intersect with traditional financial oversight.

The second phase of the design consists of a quantitative field study. This empirical component seeks to measure students' actual levels of digital readiness and test the research hypotheses mathematically. By synthesizing theoretical deductions with empirical metrics, this mixed design ensures a comprehensive understanding of whether academic outcomes align with the operational realities of the digitized labor market.

2. Target Population and Contextual Background:

The target population for this research consists of master's students specializing in finance and accounting at the University of Continuing Education (UFC), Touggourt Center, Algeria. The University of Continuing Education holds a distinct profile within the Algerian higher education ecosystem. Originally established to provide lifelong learning opportunities, the institution serves adult learners and active professionals who seek to upgrade their academic credentials alongside their occupational responsibilities. This contextual background is crucial, as the sample represents individuals who are either active in the workforce or are direct candidates for immediate occupational transitions.

To ensure the relevance of the data, the study focuses specifically on students nearing graduation—those enrolled in Master 1 and Master 2 levels. Students at these stages have completed the core of their theoretical curriculum and are preparing to interface with professional environments. According to the official institutional registries for the 2025/2026 academic year, the total number of students enrolled in this specific master's category was 56.

3. Census Sampling Strategy and Response Rate:

Given the relatively small size of the target population (N = 56), a partial random sampling technique was deemed statistically unnecessary. Instead, the researchers adopted a comprehensive **census method (or comprehensive survey method)**. In a census approach, the sample is equal to the entire population, eliminating standard sampling errors and providing a complete structural snapshot of the group.

The primary data collection instrument was distributed to all 56 students. Throughout the distribution phase, systematic follow-ups and electronic reminders were deployed via student communication networks to encourage participation. By the end of the collection period, 42 valid and fully completed responses were retrieved, yielding a final analytical sample of N = 42. This corresponds to a successful response rate of 75%, which is statistically robust for descriptive and inferential behavioral treatments. The non-respondents (25%) were attributed to standard academic attrition, temporary leaves, or standard non-response biases typical in adult-learning environments.

4. Data Collection Instrument: Design, Modules, and Scaling:

The primary data collection tool utilized in this study was a structured electronic questionnaire developed via Google Forms. Electronic surveying was selected for its accessibility, efficiency, and accurate data logging among adult learners. The questionnaire is divided into four main sections, each targeting a specific operational dimension of readiness:

Section 1: Independent Demographic Profiling:

This section retrieves categorical data to classify participants and establish grouping variables for variance testing.

- **Gender:** Classified as Male or Female.
- **Prior Specialization (Bachelor's Level):** Classified as Accounting and Auditing, Finance, Management and Economics, or other fields.
- **Current Academic Level:** Classified as Master 1 or Master 2.
- **Employment Status and Typology:** Differentiating active workers from unemployed students and tracking specific professional sectors (e.g., Accounting, Administrative, Technical).

Section 2: Evaluative Dimensions (The Sub-Scales of Theoretical Readiness):

To measure theoretical and perceptual readiness, fifteen standard items were formulated and distributed across three sub-scales:

- **The Cognitive Dimension (5 Items):** Evaluates students' conceptual awareness of how digital technologies alter traditional auditing. It measures their understanding of electronic auditing, its impact on detection, and international standards related to information systems.
- **The Skill Dimension (5 Items):** Assesses perceived technical agility, including the ability to operate data analytics, awareness of cybersecurity parameters, and psychological readiness to integrate into smart workplaces.
- **The University Environment and Infrastructure Dimension (5 Items):** Measures perceived institutional support, laboratory facilities, and the alignment of university programs with workplace expectations.

Perceptions within these scales are gauged using a **3-Point Likert Scale** (Agree = 3, Neutral = 2, Disagree = 1). This design simplifies response logging while maintaining a clear, quantitative threshold for interpreting data. Scores are interpreted as Low (1.00 - 1.66), Moderate (1.67 - 2.33), or High (2.34 - 3.00).

Section 3: Practical and Operational Competency Checklist:

To counterbalance self-reported perceptions, a separate module explicitly tests actual operational software exposure. This section asks students to select specific programming query languages they utilize (e.g., Python, SQL, R) and the exact professional software they deploy in daily practice (e.g., Advanced Excel, PC COMPTA, or specialized CAATs like ACL and IDEA). This checklist allows the researchers to measure the direct gap between theoretical intention and practical execution.

Section 4: Qualitative Evaluation and Identification of Barriers:

The final section utilizes an open-ended question asking students to subjectively identify the primary physical, administrative, or educational barriers impeding their acquisition of digital competencies in Algeria. This provides qualitative contextual narratives that enrich purely quantitative findings.

5. Instrument Validity and Reliability Measures:

To ensure academic integrity, the questionnaire was subjected to rigorous validation procedures before deployment:

- **Face Validity and Academic Panel Arbitrage:** The drafted instrument was presented to a panel of academic arbitrators specializing in finance, accounting, and methodology. Their feedback was utilized to refine question formulation, eliminate ambiguity, and verify that the items directly correlate with the research objectives.
- **Internal Consistency and Reliability Checks (Cronbach's Alpha):** Reliability testing was executed using SPSS v.26. The results yielded a global reliability coefficient of \alpha = 0.631 for the overall questionnaire. While the cognitive sub-scale yielded a weaker internal consistency (alpha = 0.478), the skill sub-scale (alpha = 0.800) and the

infrastructure sub-scale (alpha = 0.699) demonstrated robust internal reliability. The overall coefficient of 0.631 surpasses the threshold of 0.60 accepted in social science treatments, confirming the scale's stability.

6. Normality Diagnostics and Justification for Parametric Testing:

Before running inferential statistics, it is statistically mandatory to determine whether data follows a normal distribution curve, as this dictates the choice between parametric and non-parametric treatments. A **Shapiro-Wilk test of normality** was run, which is specifically suited for sample sizes below N = 50 observations (N = 42).

The results indicated that the P-values for all three sub-scales fell below the critical significance threshold of 0.05 (Cognitive Dimension P = 0.002; Skill Dimension P = 0.000; Infrastructure Dimension (P = 0.003). This signifies a non-normal distribution, as respondents' answers skewed heavily toward positive scale ends.

Despite the non-normal skew, the researchers opted to deploy **parametric tests**. This decision is robustly justified by the **Central Limit Theorem (CLT)**. In statistical theory, the CLT dictates that the sampling distribution of the mean approaches normality as the sample size increases, regardless of the population distribution shape, provided that the sample size exceeds 30 observations. Since our final sample size is 42 (N = 42 > 30), the deployment of parametric treatments remains both mathematically valid and more statistically powerful than non-parametric alternatives.

7. Descriptive and Inferential Statistical Treatments:

Data analysis was run on SPSS v.26 applying a hierarchy of tests to answer the research questions:

- **Descriptive Treatments:**
  - **Frequencies and Categorical Percentages:** To describe demographic variables, the prevalence of unemployment, and the specific percentages of students utilizing programming languages versus standard spreadsheet software.
  - **Weighted Averages and Standard Deviations:** To determine the precise satisfaction and agreement thresholds for each of the fifteen sub-scale items.
- **Inferential and Hypotheses Treatments:**
  - **One-Sample T-Tests (H1):** Executed to compare the sample's perceptual mean against the neutral test value of 2.00. If the sample mean exceeds the test value at $P < 0.05$, the level of readiness is determined to be high.
  - **Paired-Sample T-Tests (H2):** Deployed to compare two distinct scores measured on the same subjects—namely, theoretical knowledge versus actual applied software usage. If a statistically significant difference is found ($P < 0.05$), it confirms the existence of a theory-practice gap.
  - **Pearson Correlation Coefficients (H3):** Used to measure the linear strength and direction of the relationship between conceptual readiness and structural market adaptation.
  - **Independent Sample T-Tests and One-Way Analysis of Variance (ANOVA) (H4):** Applied to measure if demographic grouping factors (Gender, Level, Employment, Bachelor's Specialty) generate statistically significant differences in student readiness.
- **Qualitative Content Analysis:**

The open-ended responses regarding Algerian barriers were processed via qualitative thematic coding. Textual responses were sorted into structural categories (Physical, Administrative, Pedagogical, or Personal), and frequencies were tabulated to convert qualitative themes into descriptive frequencies.

IV- Results and discussion:

1. Descriptive and Demographic Analysis:

The descriptive statistics verify that the sample is balanced across diverse academic and professional backgrounds. In terms of gender distribution, female students represent 54.8% of the sample, while male students represent 45.2%. The academic background of participants is predominantly aligned with administrative and financial sectors, with 42.9% of respondents possessing a bachelor's degree in accounting and auditing, and 40.5% in general finance.

Consistent with the unique institutional profile of the University of Continuing Education (UFC) in Touggourt, which focuses on lifelong adult learning, a vast majority of the respondents (78.6%) are active workers. Occupational tracking indicates that 26.2% perform accounting or financial duties, while 21.4% are engaged in administrative roles. This high employment rate serves as a double-edged sword: it grants students immediate practical awareness of workplace requirements but simultaneously limits the time available for self-driven technological upskilling.

Despite this rich professional demographic, descriptive frequencies reveal a severe structural limitation in modern applied competencies. When asked about query languages and analytical tools, a massive percentage of the students (54.8%) demonstrated zero familiarity with advanced tools such as SQL, R, or Python. Instead, the sample relies purely on standard spreadsheet processing, with 52.4% using advanced Excel and 19\% utilizing standard local accounting software (e.g., PC COMPTA). The usage rates of specialized Computer-Assisted Audit Tools (CAATs) like IDEA or ACL remain critically low (below 10%). These metrics highlight that while students are workplace-integrated, their technological utility remains tethered to traditional, manual-digitization tools rather than smart, algorithmic querying.

2. Hypotheses Testing and Digital Readiness Assessment:

- **Theoretical and Cognitive Readiness (H1 - Partially Confirmed)**

To test whether students demonstrate a high level of theoretical digital readiness, a One-Sample T-test was conducted, comparing the sample's weighted mean against the neutral scale value of 2.00. The descriptive parameters indicate that students possess a very high level of theoretical awareness regarding digital shifts in auditing. The weighted mean for the cognitive dimension reached 2.56 out of 3.00. Specific items tracking students' awareness of the structural impacts of IT on auditing yielded the highest score (Mean = 2.79, Standard Deviation = 0.52).

The One-Sample T-test yielded a calculated t-value of 10.47 at a statistically significant level of $P = 0.000 < 0.05$. Consequently, the null hypothesis (H0), which predicted a moderate or average level of theoretical readiness, was rejected. The findings overrule standard moderate expectations, proving that students are conceptually well-informed about modern technological auditing trends.

- **The Theory-Practice Capability Gap (H2 - Confirmed)**

The second hypothesis evaluated whether master's students lack the practical digital skills required in a digital auditing environment despite their theoretical understanding. To test this, a Paired-Sample T-test was executed to compare perceptual theoretical scores against practical competency averages.

The statistical parameters confirm a severe theory-practice gap. While students excelled at conceptual definitions (Mean = 2.47) , their operational proficiency scores dropped significantly (Mean = 1.93). The calculated t-value for the paired comparison was 30.55 ($P = 0.000 < 0.05$). This empirical linkage rejects the null hypothesis and confirms that Algerian master's students severely lack applied competencies in specialized data analytics software and automated auditing frameworks. They are conceptually aware of what digital auditing entails but remain unequipped to operate query languages or simulate real-world digital audit trails.

- **Linkages Between Readiness and Professional Market Adaptation (H3 - Rejected)**

The third hypothesis predicted a statistically significant relationship between students' current theoretical readiness and their structural capacity to meet professional market benchmarks. To assess this, Pearson Correlation coefficients (r) were computed between theoretical indicators and applied indicators.

The treatment yielded a weak correlation coefficient of $r = 0.249$ with a significance level of $P = 0.112 > 0.05$. Since the significance value exceeds the 0.05 threshold, the statistical linkage is verified as non-significant. This means that theoretical knowledge does not naturally translate into practical market adaptation for this sample. Elevating conceptual awareness without concrete, laboratory-based software training does not prepare students for structural adaptation in the modern labor market. Therefore, H3 was rejected.

- **Uniform Deficits Across Demographic Profiles (H4 - Rejected)**

Hypothesis four explored whether demographic characteristics generated significant variances in readiness levels among students. Independent Sample T-tests and One-Way Analysis of Variance (ANOVA) treatments were run across all independent groupings.

The treatments demonstrated no statistically significant variances in readiness levels based on gender ($P = 0.610 > 0.05$), specialty ($P = 0.460 > 0.05$), current master's level ($P = 0.945 > 0.05$), or general employment status ($P = 0.128 > 0.05$). The deficits in applied execution represent a uniform academic trend among the surveyed sample. Readiness levels are shaped by standardized curricula and localized educational environments rather than personal demographic traits. Consequently, H4 was rejected.

1. Broad Academic Discussion of the Results:

The findings seamlessly match contemporary literature criticizing the widening gap between traditional academic pedagogy and modern labor market demands. While the University of Continuing Education (UFC) successfully delivers theoretical awareness , it frequently falls short of providing hands-on, practice-oriented training.

This structural bottleneck is further validated by the qualitative analysis of the open-ended survey question. When asked to identify the primary obstacle to digital competency acquisition in Algeria, 54% of respondents cited a lack of specialized technical training and training workshops, while 23% identified sub-optimal infrastructure and equipment deficits. Synthesizing the quantitative and qualitative findings, this structural bottleneck is attributed to three primary institutional vulnerabilities:

- Sub-optimal technological laboratory infrastructures : Respondents cite physical equipment shortages and limited internet access as active barriers to self-learning.
- Static curricula heavily focused on manual spreadsheet bookkeeping : Academic modules fail to introduce dynamic algorithmic querying (e.g., Python, SQL) or cloud auditing paradigms.
- Limited institutional exposure to real-world industrial software environments : Universities face difficulties procuring licensed copies of global ERP systems (e.g., SAP, Sage) or specialized audit test environments (e.g., IDEA).

Bridging this gap requires immediate curricular re-engineering, upgrading IT lab infrastructures, and establishing immersive corporate partnerships with certified auditing firms.

- Conclusion and Recommendations:

❖ Conclusion :

This empirical study evaluates the multidimensional digital readiness of master's students in finance and accounting at the University of Continuing Education (Touggourt Center). The findings uncover a deep paradox: while graduates possess an advanced theoretical understanding of modern digital shifts in auditing, they are structurally unequipped with the practical, applied competencies required in automated, real-time auditing environments. Bridging this gap is an existential necessity for the future Algerian auditing ecosystem.

❖ Recommendations

Based on these findings, this study offers the following strategic recommendations to academic policymakers and institutions:

- Curricular Modernization: Integrate specialized, applied modules focusing on cloud auditing, data visualization, and information system querying into standard accounting degrees.
- Applied Laboratory Upgrading: Equip university laboratories with specialized CAATs and simulated audit interfaces to foster hands-on learning.
- Industrial Partnerships: Solidify institutional bridges between universities, corporate financial units, and certified auditing firms to provide students with real-world immersive training.
- Continuous Hybrid Learning: Foster digital self-learning culture by exposing students to international professional certifications in computerized auditing.

- Appendices:

Table (1): Demographic and Academic Characteristics of Respondents

Variable	Category	Frequency	Percent
Gender	Male	19	45.2
	Female	23	54.8
Study Level	Master 1	27	64.3

	Master 2	15	35.7
Employment Status	Employed	33	78.6
	Unemployed	9	21.4
Academic Specialization	Accounting & Auditing	18	42.9
	Finance	17	40.5
	Management & Economics	1	2.4
	Other	6	14.3

Source: Prepared by the researcher based on SPSS 26 output.

Table (2): Professional Profile and Digital Skills

Variable	Category	Frequency	Percent
Job Type	Accounting / Finance	11	26.2
	Administrative	9	21.4
	Accounting + Administrative	2	4.8
	Technical / Technological	2	4.8
	Other	18	42.9
Programming Tools	None	23	54.8
	SQL	5	11.9
	R	4	9.5
	Python	3	7.1
	Mixed Tools	7	16.7
Professional Software	Advanced Excel	22	52.4
	Excel + Accounting Software	8	19.0
	Accounting Software Only	4	9.5
	None	4	9.5
	Other Combinations	4	9.6

Source: Prepared by the researcher based on SPSS 26 output.

Table (3): Evaluation of University Digital Training

Evaluation Level	Frequency	Percent
Excellent	10	23.8
Average	19	45.2
Weak	11	26.2
Mixed Evaluation	2	4.8

Source: Prepared by the researcher based on SPSS 26 output.

Table (4): Descriptive Statistics of Study Dimensions

Dimension	N	Mean	Std. Deviation
Cognitive Dimension	42	2.56	0.62
Skill Dimension	42	2.49	0.65
Infrastructure & Training	42	2.35	0.67

Source: Prepared by the researcher based on SPSS 26 output.

Table (5): Reliability and Normality Tests

Test	Dimension	Value	Sig.
Cronbach Alpha	Cognitive	0.478	—
	Skill	0.800	—
	Infrastructure	0.699	—
	Overall	0.631	—
Shapiro–Wilk	Cognitive	0.905	0.002
	Skill	0.865	0.000
	Infrastructure	0.909	0.003

Source: Prepared by the researcher based on SPSS 26 output.

Table (6): Hypothesis Testing Results

Test	Variable	Statistic	Sig.	Interpretation
One-Sample T-Test	Digital Readiness	t = 10.47	0.000	Significant
Paired T-Test	Theoretical vs Practical	t = 30.55	0.000	Significant
Pearson Correlation	Theoretical & Practical	r = 0.249	0.112	Not Significant
T-Test	Gender	t = -0.51	0.610	Not Significant

T-Test	Study Level	t = -0.07	0.945	Not Significant
T-Test	Employment	t = -1.63	0.128	Not Significant
ANOVA	Specialization	F = 0.87	0.460	Not Significant
ANOVA	Job Type	F = 1.23	0.312	Not Significant

Source: Prepared by the researcher based on SPSS 26 output.

Table (7): Open-Ended Responses (Barriers to Digital Transformation)

Barrier	Frequency	Percentage
Lack of digital training	19	54%
Lack of equipment	8	23%
Administrative constraints	2	6%
Personal factors	2	6%
Weak academic programs	1	3%
Other barriers	2	6%

Source: Prepared by the researcher based on SPSS 26 output.

- Referrals and references:

[1] Bouazza-Abid, B., Markik, A., & Seddiki, M. (2026). The impact of digital transformation on the practice of the auditing profession in Algeria: A field study. *Art Law and Accounting Reporter*, 45(1), pp. 30–43 . https://journalalar.org/index.php/online/article/view/31

[2] Chergui, Y., & Salem, A. (2024). Evaluating the preparedness of Algerian accountants for cloud accounting adoption: An analytical assessment of key challenges and opportunities. *International Journal of Economic Perspectives*, 18(11), pp. 2122–2140.

[3] Meraghni, O., Bekkouche, L., & Demdoum, Z. (2021). Impact of digital transformation on accounting information systems - Evidence from Algerian firms. *Economics and Business*, 35, pp. 249–264 . https://doi.org/10.2478/eb-2021-017

[4] Abdullah, A. A. H., & Almaqtari, F. A. (2024). The impact of artificial intelligence and Industry 4.0 on transforming accounting and auditing practices. *Journal of Open Innovation: Technology, Market, and Complexity*, 10(1), Article 100218 . https://doi.org/10.1016/j.joitmc.2024.100218

[5] Qader, K. S., & Cek, K. (2024). Influence of blockchain and artificial intelligence on audit quality: Evidence from Turkey. *Heliyon*, 10(8), Article e30166 . https://doi.org/10.1016/j.heliyon.2024.e30166

[6] Septarini, D. F., & Ismanto, H. (2024). Transforming audit with AI: Navigating the inevitability and challenges of accounting digitalisation. *International Journal of Engineering Research & Technology (IJERT)*, 13(7), pp. 2119–2121.

[7] Besseri, R., & Saidi, F. (2025). The future of the auditing profession in the era of digital transformation technologies: Blockchain technology as a model. *El-Manhel Economy*, 8(1), pp. 1221–1236.

[8] Zidane, Y., Ben Ali, M., & Degaa, A. (2025). Digital transformation and its impact on the accounting and auditing profession in Algeria: A field study of a sample of accounting professionals in southeastern Algeria 2024. *Lex Localis - Journal of Local Self-Government*, 23(6), pp. 7133–7141.

[9] Leocadio, D., Malheiro, L., & dos Reis, J. C. G. (2025). Auditors in the digital age: A systematic literature review. *Digital Transformation and Society*, 4(1), pp. 5–20 . https://doi.org/10.1108/DTS-02-2024-0014

[10] Huy, P. Q., & Phuc, V. K. (2025). Unveiling how blockchain-based internal auditing practices impact SDG 8 achievement? Mediating role of digital green corporate social responsibility. *Research in Economics*, 79, Article 101057 . https://doi.org/10.1016/j.rie.2025.101057

[11] Lahsini, H., & Taouab, O. (2024). Adapting to the digital era: Transformations in the audit profession and the emergence of new skills. *Revue Internationale des Sciences de Gestion*, 7(1), pp. 882–897.

[12] Ouhoud, O., & El Ouafa, K. (2025). Digital transformation and financial auditing: Reflections on risks and their management mechanisms. *Revue du Contrôle de la Comptabilité et de l'Audit*, 9(3), pp. 239–265 . https://doi.org/10.5281/zenodo.17561450

[13] Benachour, A., Abdelmalek, H., Kaddai, R., Bochelgoum, F., & Tarhlissia, L. (2025). The impact of artificial intelligence on financial auditing: The case of Algeria. *Management and Entrepreneurship: Trends of Development*, 2(32), pp. 44–61 . https://doi.org/10.26661/2522-1566/2025-2/32-03

[14] Zine, A. (2018). *Evaluating the auditing profession under electronic information systems* [Unpublished doctoral dissertation]. University of Biskra, Algeria.

[15] Merrah, N. (2024). *The impact of information and communication technology on the future of the accounting profession in Algeria* [Unpublished doctoral dissertation]. University of Algiers 3, Algeria.

How to cite this article by the APA method:

Abdelheg BOUGOFFA & Abd ellah MAYOU & Elhadj ARABA (2026), Digital Readiness of Master's Students in Finance and Accounting to Cope with Digital Transformation in the Auditing Profession in Algeria: Evidence from the University of Continuing Education (Touggourt Center), Journal of Quantitative Economics Studies, Volume 12 (Number 01), Algeria: Kasdi Marbah University Ouargla, PP. 179-189.

The copyrights of all papers published in this journal are retained by the respective authors as per the **Creative Commons Attribution License**.

Journal Of Quantitative Economics Stadies **is licensed under a** Creative Commons Attribution-Non Commercial license **(CC BY-NC 4.0).**