The Impact of Artificial Intelligence Adoption on Audit Quality Exploratory study of the Opinions of a Sample of Professionals and Academics

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Abstract:

This study examines the impact of artificial intelligence on audit quality and explores how it enhances the audit process by employing the survey method, using structured questionnaire distributed to a sample of professionals and academics. The data was analyzed using SPSS V25.

The results demonstrate that artificial intelligence enhances auditing quality by improving data accuracy, accelerating the auditing process, supporting risk assessment, fraud detection, and offering intelligent alternatives for informed decision-making.

It is recommended that auditors should implement artificial intelligence in auditing to improve audit quality by increasing accuracy and reliability over time.

Keywords : Artificial Intelligence (AI); Audit Quality; AI in Auditing; Auditing Process.

JEL Classification Code: M42, O33.

1. INTRODUCTION

Auditing is essential for assuring the reliability and accuracy of company accounting information. This function has traditionally depended

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on manual processes and human skill. Nonetheless, the emergence and advancement of information technology have influenced numerous business sectors and professionals in various fields, particularly auditors as a primary source of providing decision-makers with essential information, it has imposed on them the necessity to acquire new skills and expertise that enable them to employ these technological advancements, foremost among them artificial intelligence.

As a result, professional organizations have turned their focus to employing AI to improve auditing procedures and disrupt auditors' traditional working techniques. This is owing to the benefits it delivers, the most important of which are improved audit quality and the impact it has on how auditors execute their tasks, collect evidence, and organize, analyze, and interpret data, all of which affect the quality of audit reports.

1.1 Research Problem and Hypothesis:

- What impact does the implementation of AI have on the auditing process's quality according to the study sample?

Main hypothesis:

" At α=0.05 ,there is no effect of adopting AI on the quality of the auditing process according to the study sample" .

Sub-hypotheses:

- "At α=0.05 ,there is no effect of adopting AI on the efficiency and professional experience of the auditor according to the study sample."
- "At α=0.05 ,there is no effect of adopting AI on the efficiency and efficacy of auditing according to the study sample."
- "At α=0.05 ,there is no effect of adopting AI on risk assessment according to the study sample."
- **"** At α=0.05 ,there is no effect of adopting AI on speed and cost according to the study sample."
- **"** At α=0.05 ,there is no effect of adopting AI on quality of auditor reports according to the study sample."
- **"** At α=0.05 ,there is no effect of adopting AI on adherence to professional and legal standards according to the study sample."

1.2 Study Objectives:

It can be summarized in the following points:

- Presenting the conceptual framework of AI and showcasing its most important applications used in the field of Auditing;
- Presentation of the basic theoretical concepts related to audit quality;
- Discussing the influence of AI implementation on the improvement of audit quality.

1.3 Study Methodology:

This study was conducted to accomplish its objectives. We used a descriptive approach to outline the study's variables by referencing relevant previous studies. We also used a statistical analysis approach to analyze the data collected from the questionnaire, utilizing statistical methods (SPSS V25) to derive our findings.

1.4 Previous Studies :

- Study of Isaiah, O.A. et al (2023), Artificial Intelligence and Audit Quality: Implications for Practicing Accountants, *Asian Economic and Financial Review,* Vol 13, Issue 11:

The research aimed to examine the influence of artificial intelligence on audit quality through the use of a survey methodology. Surveys were administered to practicing accountants and personnel of the Big Four accounting firms. The analysis concluded that audit quality was enhanced by AI. The findings indicate that accountants ought to consider employing AI, since it positively influences the quality of audits on reliability, accuracy, and expeditious financial reporting.

- Study of Henry, H. & Rafique, M. (2021), Impact of Artificial Intelligence (AI) on Auditors: A Thematic Analysis. *IOSR Journal of Business and Management,* Vol 23, Issue 09:

The study aimed to understand auditors' perceptions and experiences concerning the impact of integrating artificial intelligence technologies used in auditing on the auditing profession thru a series of semi-structured interviews with 100 participants who have experience as auditors. The study concluded that for artificial intelligence to be effective, auditing standards must improve, and the widespread application of AI to repetitive

auditing tasks will enable auditors to concentrate on activities necessitating professional judgment.

2. Theoretical Framework :

Many stakeholders rely on the auditor's report for critical decision-making, so improving the audit process is necessary to advance the audit profession. In order to enhance their performance, auditors must employ modern and advanced methods. One of the most important is AI.

2.1 The Concept of Artificial Intelligence:

Invented in 1955 by two mathematicians, John McCarthy and Marvin Lee Minsky, the term "artificial intelligence" is commonly abbreviated as "AI." "Artificial" refers to the use of computers or advanced electronic systems, while "intelligence" refers to the goal of mimicking human behavior. (Bourenane Cherif, 2025, p.103)

Artificial Intelligence (AI) is a computer program with the capability of taking balanced decisions, mimicking “cognitive” function associated with the human mind, and able to observe its environment and take actions that maximizes its chances of attaining a goal. (Ghanoum & Alaba,2020, p.19)

Artificial Intelligence is a combination of hardware and software that works like the human brain which can evaluate, decide and carry out complex judgment processes based on the available data. (Puthukulam et al, 2021, p.1185)

According to the previous definitions, artificial intelligence encompasses computer programs and systems capable of simulating human problem-solving and decision-making by processing extensive data rapidly to generate precise and reliable information.

2.2 Benefits of AI in Auditing:

The auditing profession has experienced significant transformation globally due to the extensive integration of technology, particularly artificial intelligence. The utilization of AI in auditing techniques has streamlined the analysis of vast financial data, hence enhancing the detection of patterns and abnormalities. Moreover, the implementation of

AI in auditing has enhanced capacity for decision-making. Continuous Auditing tools, developed by AI: (Hashed & Almaqtari, 2024, p.03-04)
- Capable of identifying fraudulent transactions, enhance financial forecasts, budgeting, and forecast future patterns based on historical data.
- Can rapidly analyze big datasets, detecting patterns, trends, and abnormalities.

AI can also make audits more efficient and effective by evaluating financial statements, detecting potential risks, and suggesting areas that require further examination.

Despite all of its benefits, it is important to remember that AI technology is meant to complement human auditors' skills rather than replace them. As a result, human judgment and decision-making remain essential. Integrating artificial intelligence into auditing procedures requires the acquisition of new skills and the adjustment of auditors' evolving roles. They must learn how to use AI tools effectively, interpret insights produced by AI, and comprehend the ethical implications.

2.3 Disadvantages of Using AI in Auditing:

Although AI provides many benefits, there are still challenges, such as the necessity for specialized training, ethical considerations, and privacy concerns, in addition to the following**: (**El-Mousawi et al, 2023, p.07)

- The massive expense of developing, upgrading, and maintaining systems;
- Decision-making processes that are prolonged as a result of the examination of additional alternatives;
- The lack of the capacity for human beings to exercise professional scepticism, practise reasoning, and exercise professional judgement;
- Potential for income inequality and reduced labour demand;
- Potential for AI tools being handed to competitors and used against auditors;
- Accounting tasks are performed by computers via networks, thereby inevitably affecting the security of financial data;
- Algorithms may exhibit internal biases or incorporate human logical fallacies or inherent human prejudices.

2.4 Artificial Intelligence (AI) and Audit Quality:

Audit quality is ensuring that the financial statements audited are free from mistakes, and the fundamental objective of an audit is to obtain reasonable assurance that the financial statements are free from irregularities. (Isaiah et al, 2023, p.759)

AI technologies demonstrate the potential to enhance the analytical capabilities of auditors. The application of AI-driven data analytics tools can improve audit quality, thereby increasing their efficacy and efficiency. Artificial intelligence can streamline audit processes by automating repetitive and time-intensive tasks such as data entry, data validation, and documentation. This automation minimizes human error, allowing auditors to concentrate on more difficult, judgment-based tasks. The automation of routine tasks through AI can enhance audit quality by enhancing accuracy, boosting efficiency, and allowing auditors to dedicate more time to higher-value activities. (Qader & Cek, 2024, p.04)

The continuous monitoring ability improves auditors' capacity to identify and address emergent risks, thereby enhancing audit quality through the provision of timely insights to stakeholders. AI identifies areas of increased audit risk, enabling auditors to priorities their efforts and enhance audit quality. Utilizing AI's analytical capabilities enables auditors to access comprehensive datasets, conduct sophisticated analyses, and identify patterns that may be overlooked in manual processes. The enhanced capacity to identify fraudulent activities and uphold the integrity of financial reporting enhances the overall quality of audits. (Patel et al, 2023, p.06)

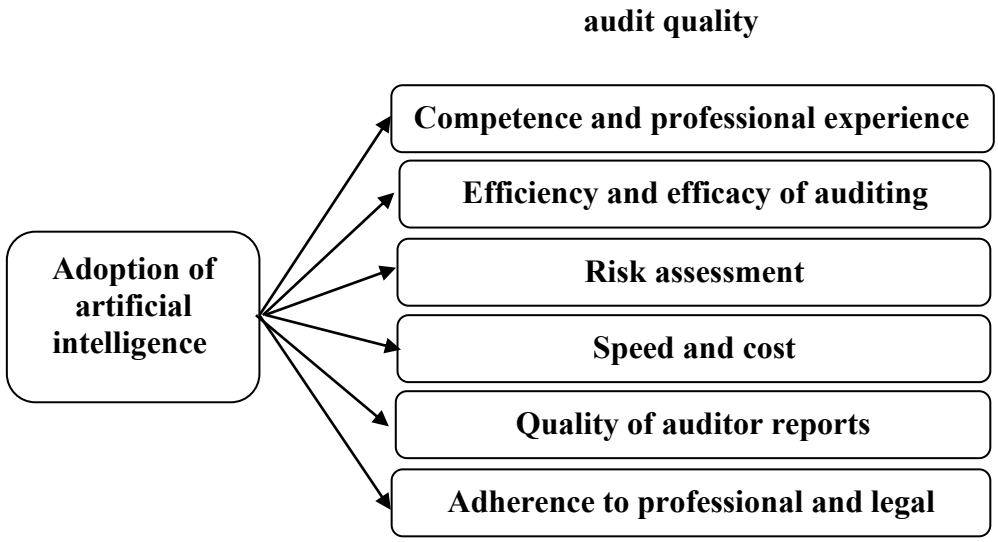
AI systems are able of processing entire datasets, rather than relying on sampling methods. This ensures that auditors can more thoroughly evaluate all available data and identify potential risks more comprehensively. This results in quicker audits, minimized human error, and enhanced reliability in financial reporting, ultimately elevating the overall quality of audits. (Ben Gabsia & Abaoub,2025, p07)

3. Field Study:

3.1 Study sample and population:

The study population comprised auditors, certified public accountant, and academics. Out of the 100 surveys that were sent out, 89 were returned, three of which were deemed ineligible.

Fig.1. The Study Model



Source: Prepared by Researchers**.**

3.2 Statistical Techniques used in Data Analysis:

The SPSS software was used, and the following statistical tests were applied: Cronbach's Alpha coefficient; arithmetic mean; standard deviation, frequency distribution and percentages, simple regression analysis to study the effect of one variable on another, and Pearson correlation coefficient to examine relationships between variables.

3.2 Questionnaire Design:

It should be noted that the questionnaire form was prepared based on the five-point Likert scale, with the aim of determining the general direction of each of the study axes .

Table 1. Five-point Likert Scale

Scale	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Score	1	2	3	4	5
Weighted average	[1 – 1,8]	[1,81 - 2,6]	[2,61 -3,4]	[3,41 - 4,2]	[4,21 - 5]

The questionnaire form was divided into two main parts:

- the first part contains the personal data of the study sample (age; academic qualification; job, and professional experience).

- the second part deals with the main themes of our study as follows:

The first section : the adoption of AI in auditing, included 10 items.

The second section: the impact of using AI on the dimensions of audit process quality (the auditor's professional competence and experience; the speed and cost dimension; efficiency and efficacy of auditing; quality of auditor reports; the risk assessment ,adhering to professional and legal standards) included 30 item.

3.3 The Reliability and Validity of the Study Tools:

3.3.1.Reliability: It was calculated using Cronbach's alpha coefficient, which is based on estimating the rate of correlations between the statements for each part separately, as shown in the following table:

Table 2. Results of the Cronbach alpha test to measure the reliability

Questionnaire Sections	Number of Items	Cronbach's Alpha
The adoption of AI in auditing	10	0.648
The impact of using AI on the dimensions of audit process quality	30	0.698
Overall	40	0.803

Source: Produced by the Researchers Using the Results of SPSS V25

Table 2 indicates that Cronbach's Alpha for all items is 0.803. This signifies the reliability of the questionnaire items.

3.3.2 Validity: Pearson's correlation coefficient was employed to estimate the correlations between the scores of each dimension and the overall score, as indicated by the data in the table below:

Table 3.Results of Testing Correlation Coefficients for the Structural Validity

Questionnaire Sections	Correlation Coefficient
The adoption of AI in auditing	**0.884****
The impact of using AI on the audit process quality	**0.978****
**** The Correlation is statistically significant at the level (α =0.01)**	

Source: Produced by the Researchers Using the Results of SPSS V25

3.4 Analysis of the Results of the Questionnaire:

3.4.1 Analysis of Sample Opinions Regarding the First Part "Personal and Functional Data":

The study sample was selected and included a group of auditors, certified accountants, and professors, totaling 89 individuals, as shown below:

Table 4. Personal and Functional Data

Variables	Category	Frequency	Percentage %
Age	30 years and less	15	17 %
	31-40 years	32	35.9 %
	41-50 years	23	25.8 %
	50 years and more	19	21.3 %
	Total	**89**	**100** %
Academic qualification	Bachelor's Degree	16	18 %
	Master's / Magister's Degree	35	39.3 %
	Ph.D.	30	33.7 %
	Other	08	09 %
	Total	**89**	**100** %
Professional Qualifications	Auditor	29	32.6 %
	Certified Accountant	25	28 %
	Professors	35	39.4 %
	Total	**89**	**100** %
Professional experience	5 years and less	17	19.1 %
	6 to 10 years	29	32.6 %
	11 to 15 years	31	34.8 %
	15 years and more	12	13.5 %
	Total	**89**	**100** %

Source: Produced by the Researchers

In terms of professional qualifications, the table above indicates that 35 of the 89 participants in the study sample were university professors, which accounted for 39.4% of the total. The remaining 32.6% were auditors. The percentage of participants who were certified accountants was the lowest, with a total of 28%.

3.4.2 Analysis of the Results of the First Section of the Questionnaire

The findings are reported in the table below:

Table 5. The Sample Members' Answers to Items on "the adoption of AI in auditing":

N°	Items	Arithmetic Mean*	S.D*	Rank	Level of Agreement
1	There is support and encouragement for using AI in auditing	4,06	1,062	2	High
2	AI is an effective mean to detect errors faster	3,85	1,077	7	High
3	The use of AI provides accurate and comprehensive information	4,20	1,005	1	Very high
4	AI tools provide effective support in assessing audit risks	3,79	1,233	9	High
5	AI reduces reliance on traditional manual procedures	3,92	1,107	5	High
6	AI enhances the ability to process and analyze large volumes of data	3,99	1,059	4	High
7	AI provides outputs that meet users' needs and enable them to make quick and appropriate decisions	3,88	1,166	6	High
8	AI reduces negative practices of creative accounting	4,01	1,068	3	High
9	Using AI may adversely affect the critical thinking abilities of humans	3,85	1,274	8	High
10	AI in auditing is necessary to keep up with global advances.	3,78	1,160	10	High
Overall Mean and Standard Deviation		**3,933**	**0,550**	**-**	**High**

Source: Produced by the researchers using the results of SPSS V25.

From the table above, it is clear to us that the overall arithmetic mean

of the sample members' answers to the items on the section of adopting AI in the audit process was 3.933, with a standard deviation of 0.550, which indicates that sample members' opinions are close and centered around the value of the overall arithmetic mean, which is within the high degree of importance. Also, the sample members' answers to the statements on this section varied according to the arithmetic mean and SD of each statement.

3.4.3 Analysis of the Results of the Second Section of the Questionnaire:

The questionnaire results in this section are categorized into six dimensions, as illustrated in the subsequent tables:

Table 6. The Sample Members' Answers to Items on " the impact of using AI on the dimensions of audit process quality":

N°	Items	Arithmetic Mean*	S.D*	Rank	Level of Agreement
Competence and professional experience		**3,6660**	**0,56142**	**3**	High
1	Auditors possess sufficient knowledge of AI applications relevant to the auditing profession	3,54	1,298	5	High
2	Auditors have the capabilities to use artificial intelligence effectively	3,60	1,310	4	High
3	Using AI enhances the technical competence of auditors and develops their analytical skills	3,78	1,168	1	High
4	Relying on AI outputs affects auditors' independence in decision-making.	3,68	1,278	3	High
5	AI enhances the objectivity of auditors' judgments and reduces human bias	3,73	1,309	2	High
Efficiency and efficacy of auditing		**3,692**	**0,560**	**2**	**High**
1	The use of AI enhances the efficiency of collecting and analyzing large amounts of data	3,82	1,123	1	High
2	Audit procedures are more organized when using artificial intelligence tools	3,64	1,185	5	High
3	Using AI helps reduce human	3,69	1,277	2	High

	errors that result from repetitive tasks				
4	The auditor's use of AI enables him to focus on analytical procedures and break free from routine work	3,65	1,359	4	High
5	Using AI tools helps improve the accuracy of the evidence that the auditor relies on	3,66	1,273	3	High
	Risk assessment	**3,718**	**0,641**	**1**	**High**
1	The use of AI contributes to improving the ability to detect financial risks	3,73	1,153	3	High
2	AI helps identify weaknesses in the company's financial system thru data analysis tools	3,64	1,124	4	High
3	AI enhances auditors' ability to detect accounting manipulations and fraud early	3,91	1,156	2	High
4	AI offers an expanded view of the potential risks associated with the company	3,97	1,193	1	High
5	AI provides predictive analytics that enable auditors to better assess risks	3,34	1,437	5	High
	Speed and cost	**3,6000**	**0,62410**	**5**	High
1	The use of AI reduces the working hours required to complete routine audit tasks	3,59	1,364	3	High
2	AI enables the auditor to conduct the audit faster without compromising quality.	3,50	1,382	5	High
3	Artificial intelligence helps reduce the overall cost of the audit process	3,50	1,307	4	High
4	AI provides cost-effective solutions and improves resource efficiency	3,66	1,335	2	High
5	AI contributes to reducing the need for additional human	3,75	1,274	1	High

	resources to perform auditing tasks.				
Quality of auditor reports		**3,5100**	**0,72773**	**6**	**High**
1	AI contributes to improving the reliability and transparency of the information contained in the auditor's report	3,41	1,296	4	High
2	AI enables auditors to prepare more comprehensive, clear and simple financial reports	3,42	1,401	3	High
3	Reports prepared using AI are more detailed and, and meet users' needs	3,40	1,421	5	High
4	Artificial intelligence improves the auditor's ability to provide value-added recommendations in his report	3,59	1,326	2	High
5	Artificial intelligence enhances the credibility of audit report results	3,73	1,118	1	High
Adherence to professional and legal standards		**3,6060**	**0,62633**	**4**	**High**
1	AI ensures that the auditor adheres to the regulations and laws regulating the auditing profession	3,66	1,343	2	High
2	AI helps auditors apply best professional practices in auditing while continuously keeping up with developments	3,95	1,175	1	High
3	Relying on artificial intelligence technologies can raise concerns about confidentiality and data security	3,52	1,251	3	High
4	The use of AI is considered of compliance with professional and legal standards	3,39	1,262	5	medium
5	AI helps in automatically assessing compliance with accounting standards	3,51	1,345	4	High

Source: Produced by the Researchers Using the Results of SPSS V25

❖ **Dimension of Competence and Professional Experience**:

This dimension achieved the third rank in terms of the relative importance assigned to it by the research sample. The overall arithmetic mean of the sample members' responses to the questions in this dimension was 3.6660, with a standard deviation of 0.56142, indicating the convergence of sample members' opinions. This confirms that possessing knowledge and skill in using AI increases the auditor's technical competence and contributes to the development of their analytical skills. It also enhances the objectivity of the judgments issued by the auditor.

❖ **Dimension of the Efficiency and Efficacy of Auditing:**

This dimension achieved the second rank, with an overall mean of 3.692 and a standard deviation of 0.560 for the responses of the sample members to the items of this dimension. This indicates a convergence of the sample members' opinions, which confirms that AI help improve auditing procedures, increase the efficiency of collecting and analyzing large amounts of evidence, and make it more accurate, in addition to reducing human errors resulting from task repetition.

❖ **Risk Assessment Dimension:**

This dimension achieved the first rank in terms of relative importance, and the overall arithmetic mean was 3.718, while the standard deviation was 0.641. Accordingly, the individuals' opinions are similar, and based on this, it becomes clear to us that the sample members believe that the use of AI provides the auditor with a more comprehensive view of current and expected risks, helps him identify weaknesses in the financial system, and enables him to detect early accounting manipulations and fraud operations.

❖ **Speed and Cost Dimension:**

This dimension achieved the fifth rank, as the sample members' responses to the items in this dimension had a total arithmetic mean of 3.6000 and a standard deviation of 0.62410. This indicates the convergence of their opinions that the auditor's use of AI reduces the time required to complete routine audit tasks within the limits of available material and human resources and faster without affecting quality, which leads to

reducing the total cost of the audit process.

❖ **Quality of Auditor Reports Dimension**:

This dimension achieved the sixth rank, as the total arithmetic average of the sample members' answers reached 3.5100 with a standard deviation of 0.72773. This is considered confirmation of their beliefs that reports prepared using AI are clearer and more comprehensive, and that the information contained in them is more transparent and reliable, which increases its credibility. Most of the sample also believe that AI improves the auditor's ability to provide value-added recommendations in his report.

❖ **Dimension of Adherence to Professional and Legal Standards**:

This dimension ranked fourth, with a total arithmetic mean of 3.6060 and a standard deviation of 0.62633, indicating a convergence of opinions among the sample members regarding the presented statements., as they confirm that the auditor's use of AI tools helps evaluate the extent of compliance with accounting standards by the management of the institution under audit on the one hand, Adherence to the regulations and laws regulating the profession, applying best professional practices, and continuously monitoring its development.

3.5 Testing the hypotheses:

3.5.1 Testing the Main Hypothesis:

To test this hypothesis, we use a simple linear regression test as follows:

Table 7. Simple Regression Equation for the Main Hypothesis

Correlation Coefficient	Determination Coefficient	regression coefficient	T-Value	F-Value	Significance Level
0.767	0.588	1.033	11.820	139.702	0.000

Source: Produced by the Researchers Using the Results of SPSS V25

We observe from the table above that the Pearson correlation coefficient is R = 0.588, which is a positive correlation coefficient. This explains the existence of a strong positive relationship between the two variables, as the adoption of AI positively impacts the quality of the auditing process. As for the interpretability of the regression model represented by the coefficient of determination, it reached 0.588. The adoption of AI accounts for 58.8% of the changes observed in audit quality.

In terms of the model's overall significance, the F-test results revealed

a value of 139.702 at a significance level of 0.000, which is below the 0.05 threshold. Furthermore, at a significance level of 0.000, the partial regression significance test (T-test) produced a value of 11.820, which is likewise below the 0.05 cutoff.

As a result, the main hypothesis which states : "At α=0.05 ,there is no effect of adopting AI on the quality of the auditing process according to the study sample" is not accepted.

3.5.2 Testing the First Sub-hypothesis:

To test this hypothesis, we use a simple linear regression test as follows:

Table 8. Simple Regression Equation for the First Sub-hypothesis

Correlation Coefficient	Determination Coefficient	regression coefficient	T-Value	F-Value	Significance Level
0.568	0.323	0.558	6.839	46.768	0.000

Source: Produced by the Researchers Using the Results of SPSS V25

We observe from the table above that the Pearson correlation coefficient reached R = 0.568, which is a positive correlation coefficient, indicating a strong positive relationship between the two variables. This is because the auditor's professional competence and experience are positively influenced by the adoption of AI.

As for the explanatory power of the regression model represented by the coefficient of determination, it reached 0.323, which means that the adoption of AI explains 32.3% of the changes that occur in the auditor's efficiency and professional experience.

Consequently, the primary hypothesis, which asserts:: "At α=0.05 ,there is no effect of adopting AI on the efficiency and professional experience of the auditor according to the study sample " is rejected

3.5.3 Testing the Second Sub-hypothesis:

To test this hypothesis, we use a simple linear regression test as follows:

Table 9. Simple Regression Equation for the Second Sub-hypothesis

Correlation Coefficient	Determination Coefficient	regression coefficient	T-Value	F-Value	Significance Level
0.419	0.176	0.411	4.567	20.862	0.000

Source: Produced by the Researchers Using the Results of SPSS V25

According to the table above, the Pearson correlation coefficient reached R = 0.419, indicating a strong positive direct correlation between

the two variables. The regression model's explanatory power, as measured by the coefficient of determination, was 0.176, showing that 17.6% of the variations in the efficiency and efficacy of auditing may be explained by the application of AI. As a result, the second hypothesis which states:" At α=0.05 ,there is no effect of adopting AI on the efficiency and efficacy of auditing according to the study sample " is rejected.

3.5.4 Testing the Third Sub-hypothesis:

To test this hypothesis, we use a simple linear regression test as follows:

Table 10. Simple Regression Equation for the Third Sub-hypothesis

Correlation Coefficient	Determination Coefficient	regression coefficient	T-Value	F-Value	Significance Level
0.632	0.400	0.543	8.076	65.217	0.000

Source: Produced by the Researchers Using the Results of SPSS V25

The Pearson correlation value achieved R = 0.632, which is a positive correlation, showing a strong positive linear link between the two variables. The regression model's explanatory power, as measured by the coefficient of determination, was 0.400, suggesting that the adoption of AI accounts for 40% of the changes in risk assessment. Consequently, the third hypothesis, which states: "At α=0.05 ,there is no effect of adopting AI on risk assessment according to the study sample" Is rejected.

3.5.5 Testing the Fourth Sub-hypothesis:

To test this hypothesis, we use a simple linear regression test as follows:

Table 11. Simple Regression Equation for the Fourth Sub-hypothesis

Correlation Coefficient	Determination Coefficient	regression coefficient	T-Value	F-Value	Significance Level
0.412	0.178	0.372	4.599	21.152	0.000

Source: Produced by the researchers using the results of SPSS V25

From the above, it becomes clear that the Pearson correlation coefficient reached R = 0.412, which is a positive correlation coefficient, and this means that there is a strong, direct, positive relationship between the two variables. The regression model had 0.178 as its explanatory power, which is shown by the coefficient of determination. As a result, the use of AI explains 17.8% of the changes in cost and speed.

Consequently, the fourth hypothesis, which states: **"** At α=0.05 ,there is no effect of adopting AI on speed and cost according to the study sample

" is rejected.

3.5.6 Testing the Fifth Sub-hypothesis:

To test this hypothesis, we use a simple linear regression test as follows:

Table 12. Simple Regression Equation for the Fifth Sub-hypothesis

Correlation Coefficient	Determination Coefficient	regression coefficient	T-Value	F-Value	Significance Level
0.535	0.286	0.405	6.271	39.321	0.000

Source: Produced by the Researchers Using the Results of SPSS V25

The table above indicates that the Pearson correlation coefficient is R = 0.535, signifying a high positive correlation between the two variables. The coefficient of determination for the regression model is 0.286, indicating that the implementation of artificial intelligence technology accounts for 28.6% of the variations in the quality of the final report. Thus, according to the study sample, the fifth hypothesis, which reads, "At α=0.05, there is no effect of adopting AI on the quality of auditor reports" is rejected.

3.5.7 Testing the Sixth Sub-hypothesis:

To test this hypothesis, we use a simple linear regression test as follows:

Table 13. Simple Regression Equation for the Sixth Sub-hypothesis

Correlation Coefficient	Determination Coefficient	regression coefficient	T-Value	F-Value	Significance Level
0.429	0.184	0.377	4.704	22.130	0.000

Source: Produced by the Researchers Using the Results of SPSS V25

The correlation coefficient was R = 0.429, indicating a significant and direct positive correlation between the two variables. This is because using AI improves compliance with professional and legal standards. The regression model's explanatory power, as measured by the coefficient of determination, was 0.184, indicating that the use of AI explains 18.4% of the changes that occur in accordance with professional and legal norms.

The sixth hypothesis of the study posits that: " at α=0.05, adopting AI has no effect on adherence to professional and legal standards within the study sample" Is not accepted.

4. CONCLUSION

The findings demonstrate that artificial intelligence enhances auditing quality by improving data accuracy, accelerating the auditing process, supporting risk assessment, fraud detection, and offering intelligent alternatives for informed decision-making, thus increasing the reliability of information utilized by financial statement users.

Through the applied study, we identified a strong statistically significant correlation between the utilization of AI and the quality of audits. This demonstrates a sincere professional recognition of the significance of AI among the sample participants.

To sum up, this study's results highlight how important it is to use AI to the auditing profession, highlighting its effective contribution to enhancing the quality of auditing processes. Nevertheless, human auditors continue to play a vital role, particularly when it comes to exercising professional judgment ensuring adherence to legal and ethical standards. Therefore, the development of this field is considered a necessary step toward enhancing the quality of the auditing profession in Algeria.

The key findings presented in this research paper are as follows:

- AI can enhance audit quality through improved data analysis, automation of repetitive tasks, facilitation of continuous auditing, and support for risk assessment and fraud detection;
- Decision support systems powered by AI can enhance the quality of audits by helping auditors make more accurate decisions;
- Using artificial intelligence applications to analyze large amounts of data can help reduce costs and boost efficiency;
- AI contributes to the completion of repetitive tasks, such as sample selection and evidence gathering, enabling auditors to concentrate on more complex responsibilities;
- The analysis of the responses of the study sample provides evidence that AI has a positive effect on audit quality;
- Auditors may benefit from AI-powered tools in identifying irregularities, enhancing the accuracy and reliability of audit findings;

- A strong statistically significant correlation exists between the implementation of AI and the enhancement of auditing processes.

According to the study's findings, many recommendations can be outlined:

- ✓ Conduct training courses and workshops to familiarize auditors with AI, enabling them to manage its various applications effectively;
- ✓ Raising awareness among auditors about the use AI technologies, and encouraging them to use them as an imperative necessity;
- ✓ Auditors need to keep up with technology developments and dedicate themselves to learning new skills to enhance efficiency when using AI
- ✓ Universities should update curricula and teaching materials to reflect technological improvements in the auditing profession.

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