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Artificial Intelligence is A Threat to The Independence of The Accountant or A Tool for Developing The Profession

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Abstract: The research aims to know the contributions of artificial intelligence to the development of the accounting profession and the impact of that impact on the independence of the professional accountant by achieving higher efficiency of performance and quality of information, identifying alternatives and knowing the challenges related to the use of process automation and the role of these systems in the accounting environment. The descriptive analysis approach was relied upon to reach the results. The outcome of the research results confirmed that artificial intelligence contributes significantly to the advancement of the accounting profession by relying on the automation of processes, analyzing financial data quickly, improving the quality of financial reports, and reducing errors. Also, relying on process automation leads to the independence of the professional accountant by providing accurate and objective data that helps in the process of making professional decisions, while the importance of human experience remains in issuing professional judgments and interpreting results, as well as the presence of obstacles associated with the use of electronic systems, including the excessive use of artificial intelligence with the possibility of a decline in the human role. The research reached a set of recommendations, the most important of which is that artificial intelligence represents an area for improving the accounting profession rather than a threat to it. To achieve this, there must be appropriate regulatory and legislative controls to develop the technical and technical skills of accountants while achieving a balance between the use of electronic systems and professional judgment to obtain accurate information.

Keywords: artificial intelligence, accounting profession, accountant independence, financial statements, professional judgment, financial reports



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1. Introduction

Artificial intelligence has become one of the most important main drivers of change in various economic, financial and administrative sectors resulting from the trend towards accelerated digital transformation that the world has witnessed in electronic systems technologies [1].

The accounting profession is affected by digital transformations and electronic systems, as artificial intelligence technologies have contributed to reorganizing accounting processes through their automation and speed in data processing, improving the validity of financial reports and the quality of information, in addition to supporting auditing and financial control operations. This has reflected positively on the efficiency of performance and reducing risks, which enhances the ability of economic units to make the most accurate financial and administrative decisions [2].

The expansion of reliance on artificial intelligence techniques raises questions about the future of the accounting profession with regard to the independence of the accountant, the impact of excessive reliance on electronic systems in professional judgments, and the possibility of a decline in the human role in issuing those judgments [3].

2. Methodology

Research problem

Accounting tasks have become automated as outputs of electronic systems, which has been reflected in the preparation of financial statements. Therefore, there has been an urgent need to study artificial intelligence in the process of accountant independence and to use it as a tool for developing the accounting profession. The research problem can be formulated as follows:

1. Does artificial intelligence have an impact on the independence of the professional accountant?
2. Could it be a threat to the accounting profession or an opportunity to develop it?

Research objectives

Objective of the research:

1. Shedding light on the concept of smart systems in the accounting field by clarifying its role in automating accounting processes and improving performance efficiency..
2. Knowing the contribution of artificial intelligence to the accounting profession as a tool for developing the profession.
3. Determine the implications of artificial intelligence on the independence of the accountant as a means of performing professional duties while supporting him in making data-based decisions.
4. Identify the threat aspects posed by AI such as over-reliance on systems, loss of professional judgment and reduced human expertise.
5. Comparing the threat and development to reach a balanced vision about the impact of digital transformation on the accounting profession..

The importance of research

The importance of this research stems from the rapid developments witnessed in the field of accounting as a result of the major transformation in artificial intelligence technologies, as these technologies are no longer merely auxiliary tools, but rather have become an essential part of implementing accounting tasks and making financial decisions. The importance of the research is highlighted through the following:

1. It contributes to understanding the concept of artificial intelligence, its role in modern accounting processes, and its relationship to the independence of the accountant.
2. It provides a practical understanding of how to employ digital technologies to improve the quality of accounting performance by reducing errors and accelerating the completion of operations, in addition to enhancing the accuracy of financial information, which helps institutions increase their operational efficiency.
3. It helps accountants and management understand how to benefit from it in supporting data-based professional decisions while maintaining a balance between relying on systems and using professional judgment.
4. Explains the positive and negative aspects of applying artificial intelligence, whether in terms of supporting the independence of the accountant by providing accurate and neutral information or through potential threats such as excessive reliance on systems and reducing the role of the human factor.

Research hypotheses

1. There is a positive correlation between the use of artificial intelligence and the independence of the accountant in preparing financial statements, which achieves the best results in financial reports.
2. Artificial intelligence improves the efficiency and accuracy of financial statements, but it reduces reliance on personal professional judgment.

Research methodology

1. The descriptive and analytical approach was relied upon, which is based on interpreting the current situation of the problem through its circumstances and dimensions and determining the relationship between them through what was presented in the theoretical and practical aspects.
2. The research methodology includes defining the framework of the research population and sample, relying on Arab and foreign sources, and designing a questionnaire list..

Second: The theoretical framework of the research

What is artificial intelligence

The actual contributions to the advancement of artificial intelligence technologies can be traced back to the forties of the twentieth century after World War II. There have been important developments in artificial intelligence technology, which led to enormous possibilities in the new millennium. There have been many views on this concept, as it is one of the types of advanced science that depends on the amount of thinking and arranging certain data according to a specific scientific specialty based on the available previous experiences and decisions of a similar nature [4].

Artificial intelligence is defined as a group of technologies that have the ability to teach, use logic, and perform tasks in a way inspired by the mind. It is the science of transforming machines into intelligence and capable of operating multiple and unlimited mental functions [5]. It is also defined as the development of complex systems that have the ability to learn, adapt, and reproduce independently and outperform humans in multiple ways that can be generally viewed as an attempt to emulate human intelligence [6].

The relationship between artificial intelligence and accounting

The field of use of advanced systems is very wide in areas of life, and some of its aspects are linked to the accounting profession. The emergence of data of large volume, speed, and great diversity, which can be processed technically to facilitate the decision-making process, has affected the accounting profession. Therefore, it requires an integration strategy between artificial intelligence and accounting systems with the aim of integrating technological capabilities into accounting processes, such as data analysis, control, decision-making support, and information provision [7]. There is a great relationship between artificial intelligence and the accounting profession that helps develop the profession. From her

1. Application of artificial intelligence in accounting and auditing: It is considered the main driver of the economic unit in maintaining its competitiveness and continuity, as it is known for the advantages of saving time, reducing costs, and visiting production. There are rising trends for artificial intelligence technology in accounting processes that show the use of technology in accounting. It can also be used in different types of accounting such as bookkeeping, auditing, etc. All of these tasks are arduous and long in the traditional way, and may be easier and simpler when using intelligence techniques. Artificial technology, enabling accountants to spend their time on more complex matters, alleviating restrictions facing traditional accounting systems, improving business operations, and enhancing good credit records for future expansion [1].

Due to recent developments in technology, the profession of accounting and auditing has witnessed major transformations. As a result, new services were provided to clients, such as studies and financial consultations, which led to the growth of the profession into new types and services until it became more competitive than it was in the previous time. Therefore, accountants and auditors used the new methodologies and tools provided by artificial intelligence technologies on a large scale to speed up accounting processes and decision-making and improve the quality of auditing processes. The fields of accounting and auditing may be affected by artificial intelligence in several ways, including saving time, effort, money, reliable accounting information, and preventing fraud [8].

2. Intelligence processes and tasks in accounting and auditing: The accounting and auditing profession has witnessed great development due to its integration, making decision-making capabilities as ideal as possible, simplifying processes and eliminating repetitive tasks. Contemporary processes of artificial intelligence in the accounting and auditing fields extend to include a large group of processes and tasks that must be implemented, which provides benefits in events [9].

The benefits of artificial intelligence technologies in the field of accounting and auditing

This merger led to major developments in the field of the profession, such as simplifying processes, making them capable of making ideal decisions, and defining contemporary technology processes to include a wide range of tasks that require implementation, which provides great benefits in the process of entering data, automatically matching it, analyzing financial data, reducing accounting costs, managing risks, detecting fraud, etc. [9]. Artificial intelligence applications have many benefits [10], including:

1. Provides more useful information and enhances the quality of accounting activities.
2. It supports auditors to identify shapes in data and make predictions or judgments..
3. 3. Companies can analyze huge and complex data into meaningful information, as easy, accurate and comprehensive procedures are implemented, ensures the quality of accounting facts, and helps stakeholders make approved decisions..
4. The role it plays in developing financial reports through the use of modern technologies and developing the capabilities of accountants and their focus on work that requires creative personal judgment, which depends on their ability to detect the use of smart methods and means that work to complete accounting work efficiently and that contribute to decision-making [11].

Challenges and opportunities in intelligent systems in accounting practices

One of the most important opportunities in using artificial intelligence is [12]:

1. It reduces the time it takes to carry out the tasks assigned to the accountant. It allows several tasks to be performed at the same time, which facilitates the process of utilizing available resources more efficiently.
2. It contributes to the accountant's performance of tasks accurately without incurring high costs.
3. Automated intelligence has no time limits, as it has the ability to work around the clock, 7 days a week without interruption.
4. Artificial intelligence systems have the ability to perform the accountant's tasks very quickly and thus make timely decisions without delay.

Among the challenges facing the use of artificial intelligence techniques are [13]:

1. Artificial intelligence technologies are very expensive to produce.
2. The ability of artificial intelligence technologies is limited and restricted by the extent of the designer and innovator of this technology.
3. The spread of artificial intelligence technologies causes an increase in the unemployment rate

The impact of artificial intelligence in developing the performance of the accounting profession

Artificial intelligence systems are rapidly changing accounting and auditing activities because they have the advantage of providing accurate work data compared to what humans do, so there is a great possibility that these systems will replace human efforts [2].

Artificial intelligence represents a qualitative shift in the field of accounting, as it offers unprecedented capabilities to increase the efficiency and accuracy of basic accounting processes. The following is the impact of applying artificial intelligence in automating routine accounting tasks and improving the quality of financial reports:

1. Invoice processing and data entry: It can extract data from electronic invoices accurately, which reduces human errors and saves time. Data can also be verified and documented quickly and effectively.
2. Verifying and recording data / recording the extracted data in accounting systems automatically, which increases efficiency, reduces human errors, and continuous verification of data accuracy.
3. Analyze reports/analyze financial data accurately and quickly and generate financial reports based on these analyses. Artificial intelligence allows the generation of advanced financial reports automatically. 3. Analyze reports / analyze financial indicators accurately and quickly and generate financial reports based on these analyzes. Artificial intelligence allows the generation of advanced financial reports automatically.

The impact of the relationship between artificial intelligence and the independence of the accountant

Artificial intelligence has tremendous capabilities and potential to revolutionize the independence of decision-making methods, as these systems provide accurate and timely data, and this will accelerate and improve the process of making decisions, independence, and improvement, which leads to improving the overall performance of economic units. Workers in the field of accounting can benefit from artificial intelligence in making more informed decisions because it addresses the impact of personal biases and limited experiences, unlike human judgment [14]. Artificial intelligence enhances the independence of the accountant through the following:

1. Reducing human intervention / the possibility of analyzing huge data with great accuracy and in a short time. This reduces the need for human intervention in regular activities such as data entry or reconciliation of accounts, which reduces the possibility of human errors. Electronic systems can verify the validity of financial data automatically and discover any discrepancies before preparing the financial report [15]. The importance of integrating technological developments through the use of industrial techniques such as neural networks in discovering basic errors in the financial statements during the audit process [16].
2. Detection of tampering / helps accountants and auditors discover errors and problems in financial reports faster, identify methods in data, and perform auditing tasks more efficiently and accurately than humans can do, thus detecting and verifying fraud and identifying those responsible for it. Artificial intelligence can detect patterns that indicate the presence of fraudulent activities by analyzing suspicious financial transactions [17].
3. Standardization of procedures / Despite the ability of advanced electronic systems to process data, they cannot completely replace the human element. To achieve greater success, there must be an integration between human efficiency and artificial intelligence. Accountants can focus on analyzing data, changing results, and providing long-term consultations. Electronic systems perform repetitive routine tasks, and this integration requires the development of new cognitive technical skills for accountants to be complementary to artificial intelligence techniques [3].

Artificial intelligence may threaten the independence of the accountant through the following:

1. Excessive reliance on systems: Some studies have confirmed that excessive reliance on the accounting information structure and electronic activities leads to a reduction in the traditional role of the accountant, as accounting operations are carried out automatically without significant human intervention, which reduces the opportunities for critical review and independent analysis of data. This reliance may weaken the accountant's professional independence and make him closely linked to the system's outputs without the possibility of fully verifying them [18].
2. Algorithmic bias: The use of a large amount of data according to the purpose of its use. This data can be sensitive and private, and there may be a chance for the data to be hacked if the body regulating its privacy and use has not been identified. Therefore, the use of artificial intelligence for accounting constitutes a source of great concern among organizations [19].
3. Reducing the role of the accountant: The Director of the Chartered Institute of Management Accountants in the United Kingdom (CIMA) indicated that new technology revolutions actually threaten the functions of accounting and auditing, as these revolutions lead to some individuals losing their jobs. He also indicated that there is an increase in the percentage of demand for them among those with competence and experience, which results in an increase in the salaries of those in this profession with experience and high qualifications [20].

How to balance artificial intelligence with accountant independence

1. Establishing controls: Identifying the relationship between electronic systems and the foundations of rules in setting accounting standards requires identifying the concept of the basis of rules, evaluating them, and the impact of official change on them as follows [21]:
 - A. Adopting accounting standards based on rules through a detailed general framework based on detailed procedures and techniques that include examples and application guidelines with the aim of

reducing the personal judgments of financial statement preparers and auditors, clearly defining the goal, providing clear interpretive rules, and limiting those judgments.

B. Finding a set of indicators to evaluate the rules in building accounting standards, including the characteristics of information quality, asymmetry, and profitability management.

C. The shift towards integrating digital tools and methodologies into the accounting profession requires a re-evaluation of rule-based accounting standards in terms of looking at their negative aspects.

2. The professional role of the accountant: The presence of artificial intelligence technologies will not eliminate the role of humans, but they will be used to improve work performance in the presence of numbers. Rather, they will provide services that require new functions. The accountant will have a role in balancing the capabilities that systems have in showing the results of operations and human capabilities in issuing professional judgments. The accountant must have the following facts available [11]:

A. Professional skills: Determining professional skills or standard professional quality must be available, and their lack of availability constitutes a major problem, so accountants must keep pace with developments in education and improve their abilities.

B. Computer skills: Computing is the current hallmark of the current era of big data, then learn about the value of digital devices in past paper-based accounting.

C. Analytical qualifications: Accountants practice analyzing a large amount of information of a financial nature through accounting data, so it is important to study and analyze concerns appropriately and accurately.

D. Decision-making skills: The ability to efficiently assess the value of a project and the means necessary to constrain the project and present the decision-making process correctly.

3. Transparency of algorithms: Artificial intelligence algorithms often act as black boxes, which makes understanding how they reach advanced results difficult and incomprehensible, especially with regard to preparing financial reports, where transparency and equality are extremely important. Therefore, the main challenge in this case is developing methods to make artificial intelligence models more transparent and changeable [22].

3. Result

Table 1. Division of the selected sample according to gender

Type	Repetition	Rate	Ranking
Male	85	77%	1
Female	26	23%	2
Total	111	100%	3

The research sample was divided according to gender, as the number of males reached (85) individuals, at a rate of (77%), while the number of females reached (26), at a rate of (23%). These results indicate that most of the sample members are male, and this is due to the nature of accounting and administrative work that witnesses greater participation of males compared to females in institutions. The distribution also indicates acceptable diversity, which helps to give a realistic picture of the questionnaire regarding the subject of the research.

Table 2. Ranking of the research sample according to academic degree

Academic qualification	Repetition	Rate	Ranking
Diploma	13	12%	4
Bachelor's degree	44	39%	1
Master	34	31%	2
Ph.D	20	18%	3
Total	111	100%	4

The research sample was divided according to academic qualification, where the percentage of bachelor's was in first place with a percentage of (39%) with a rate of (44) individuals, followed by a master's category with a percentage of (31%), then a doctorate with a percentage of (18%), and a diploma in last place with a percentage of (12%). These results show that the largest part of individuals possess university and higher academic degrees, which confirms the reliability of the answers because they possess an academic level that enables them to understand the subject of artificial intelligence and apply it in accounting work.

Table 3. Classification of the research sample according to scientific specialization

Scientific specialization	Repetition	Rate	Ranking
Accountant	46	42%	1
Audit	42	38%	2
Academic	17	15%	3
Other	6	5%	4
Total	111	100%	4

The table above classified the sample according to scientific specialization, where the accounting category came first with a percentage of (42%), followed by the auditing category with a percentage of (38%), then academics with a percentage of (15%), and in last place were other specializations. These results show that the majority of individuals are specialized, which enhances the importance of the data extracted and makes it more relevant to the research topic.

Table 4. Distribution of the research sample according to practical experience

Practical experience	Repetition	Rate	Ranking
From 1 to 5	10	9%	4
From 6 to 10	35	32%	2
More than 10	66	59%	1
Total	111	100%	4

The table shows the members of the research sample based on practical experience, where the category of more than (10) years constituted the largest percentage (59%), followed by the category of (6 - 10) years (32%), and the category (1 - 5) comes in last place with a percentage of (9%). These results indicate that a large portion have long practical experience, which reflects their ability to accurately evaluate the impact of artificial intelligence on accounting performance based on their accumulated experience.

Table 5. Artificial intelligence practices in developing the accounting field

No.	Statement	Repetition and ratio	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Result
1	Artificial intelligence plays a role in automating daily accounting activities..	Repetition	–	–	–	26	85	Strongly agree
		Ratio	–	–	–	23%	77%	
2	Artificial intelligence helps in analyzing financial data quickly and efficiently.	Repetition	–	–	–	11	100	Strongly agree
		Ratio	–	–	–	10%	90%	
3	Modern financial reporting increasingly relies on intelligent systems	Repetition	–	–	–	44	67	Strongly agree
		Ratio	–	–	–	40%	60%	
4	Artificial intelligence helps reduce human	Repetition	–	–	–	23	88	Strongly agree
		Ratio	–	–	–	21%	79%	

No.	Statement	Repetition and ratio	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Result
5	errors in accounting work							
	Intelligence improves the accuracy of financial statements	Repetition	–	–	–	58	53	agree
6	Artificial intelligence helps speed up the completion of accounting operations	Ratio	–	–	–	52%	48%	Strongly agree
	Intelligence improves the quality of the level provided to management	Repetition	–	–	–	46	65	Strongly agree
7	Artificial intelligence reduces the operational costs of accounting work	Ratio	–	–	–	41%	58%	Strongly agree
	Artificial intelligence contributes to improving the financial decision-making process	Repetition	–	–	–	36	75	Strongly agree
8		Ratio	–	–	–	32%	68%	Strongly agree
		Repetition	36	15	26	15	19	I strongly disagree
9		Ratio	32%	14%	23%	14%	17%	I strongly disagree
		Repetition	–	–	–	26	89	Strongly agree
		Ratio	–	–	–	20%	80%	Strongly agree

The results in the table above reflect that there is significant agreement among the sample members (77%) on the importance of smart systems in developing the accounting profession, as the results showed that the majority of the research sample strongly agree that artificial intelligence helps in the automation of routine accounting processes. It also helps in analyzing financial data quickly and efficiently (90%), and reduces human errors by (79%). This pattern is consistent with prior evidence on AI-enabled accounting automation [1].

The research results also showed a percentage of (80%) agreeing that artificial intelligence contributes to improving the financial decision-making process, in addition to a percentage of (68%) agreeing on the importance of electronic systems in enhancing the efficiency of accounting information provided to management. These results indicate that the sample members are aware of the positive role that artificial intelligence plays in raising the ability of accounting performance and improving the quality of financial outputs, in line with prior work on improving financial reporting through intelligent technologies [11].

The paragraph related to reducing operational costs showed a difference in opinions, as the answers were divided between approval, rejection, and neutrality, which indicates a difference in views about the ability of smart applications to actually reduce operational costs, and this may be due to the high costs of implementing and maintaining smart systems in some accounting units..

The results of research on this axis confirm that artificial intelligence represents an important tool in developing the accounting profession by accelerating accounting processes, improving the accuracy of information, and reducing human errors, which reflects positively on the quality of accounting performance [2].

Table 6. The impact of artificial intelligence on the independence of the accountant

No.	Statement	Repetition and ratio	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Result
1	Artificial intelligence enhances the	Repetition	–	–	–	15	96	Strongly agree
		Ratio	–	–	–	14%	86%	agree

No.	Statement	Repetition and ratio	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Result
	independence of the accountant by providing accurate data							
2	Artificial intelligence reduces the impact of personal bias in accounting decisions	Repetition	–	–	–	30	81	Strongly agree
		Ratio	–	–	–	27%	73%	
3	Helps support data-driven professional judgement	Repetition	–	–	–	6	105	Strongly agree
		Ratio	–	–	–	5%	95%	
4	Relying on artificial intelligence can reduce the role of the accountant in decision making	Repetition	66	37	8	–	–	I strongly disagree
		Ratio	60%	33%	7%	–	–	
5	Artificial intelligence impacts an accountant's ability to exercise professional judgment independently	Repetition	23	38	18	19	14	I don't agree
		Ratio	21%	34%	16%	17%	12%	
6	Artificial intelligence algorithms affect the impartiality of financial decisions	Repetition	–	–	–	75	36	Strongly agree
		Ratio	–	–	–	68%	32%	
7	AI cannot completely replace an accountant	Repetition	–	–	–	–	111	Strongly agree
		Ratio	–	–	–	–	100%	
8	Artificial intelligence contributes to supporting the role of the advisory accountant	Repetition	–	–	–	88	23	I agree
		Ratio	–	–	–	79%	21%	
9	An accountant needs to develop technical skills to keep up with artificial intelligence	Repetition	–	–	–	40	71	Strongly agree
		Ratio	–	–	–	36%	64%	
10	Integration between human experience and modern technologies enhances the quality of accounting work	Repetition	–	–	–		111	Strongly agree
		Ratio	–	–	–		100%	
11	Transparency of smart systems enhances confidence in financial reports	Repetition	–	–	–	31	80	Strongly agree
		Ratio	–	–	–	28%	72%	
12	Artificial intelligence	Repetition	–	–	–	36	75	Strongly

No.	Statement	Repetition and ratio	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Result
13	systems can understand inputs and perform operations on them to provide outputs that meet the needs of users with high efficiency	Ratio	–	–	–	32%	68%	agree
	The use of electronic systems applications helps increase the scientific and technical competence of the accountant to meet the needs of professional work	Repetition	–	–	–	89	22	Iagree
		Ratio	–	–	–	80%	20%	
		Repetition	77	22	12	–	–	Strongly disagree
14	It leads to the emergence of new tasks and activities related to accounting	Ratio	69%	20%	11%	–	–	
	Information technology leads to dealing with a large and complex data set that cannot be dealt with manually	Repetition	–	–	–	21	90	Strongly agree
		Ratio	–	–	–	19%	81%	

The results showed that there is a clear positive trend among the sample members towards the role that artificial intelligence plays in enhancing the independence of the accountant and supporting his professional work. The results showed that (86%) of the sample believe that it enhances the independence of the accountant by providing accurate data, and (95%) indicated that it helps in supporting professional judgment based on data. This interpretation is consistent with the view that AI can support rather than displace the accountant's professional role [14].

The research results confirmed (73%) that artificial intelligence reduces the impact of personal bias in accounting decisions and (72%) that the transparency of smart systems enhances confidence in financial reports, which confirms that the use of smart technologies contributes to improving the objectivity of accounting decisions and increasing reliance on accurate data. The emphasis on reliable, technology-supported information is also consistent with prior work on AI and audit quality [10].

Regarding the possibility of artificial intelligence replacing the accountant, the results showed that all sample members agreed (100%) that artificial intelligence cannot completely replace the accountant, which reflects the research sample's emphasis on the importance of the human role and professional judgment in accounting work, and that the percentage of agreement amounted to (100%) agreeing on the integration between human experience and modern technologies, which enhances the quality of accounting work, which confirms that artificial intelligence is a supporting tool for the accountant and not a substitute for him. This is consistent with the concept of AI as workforce supplementation rather than complete professional replacement [3].

Some paragraphs of the research showed a limited fear of the repercussions of artificial intelligence on the independence of professional decisions, but the rejection rates were higher than the approval

rates, which indicates that the majority of the sample members do not see that artificial intelligence constitutes a direct threat to the independence of the accountant.

Table 7. Artificial intelligence threatens the accounting profession

No	Statement	Repetition and ratio	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Result
1	Excessive reliance on systems leads to poor accountant skills	Repetition	–	–	9	75	27	I agree
		Ratio	–	–	8%	68%	24%	
2	Artificial intelligence threatens some accounting functions	Repetition	33	25	20	16	17	I strongly disagree
		Ratio	30%	23%	18%	14%	15%	
3	The use of artificial intelligence may gradually lead to the loss of human expertise	Repetition	10	10	1	46	44	I strongly agree
		Ratio	9%	9%	09%	41%	40%	
4	Data security is a major problem in the use of artificial intelligence	Repetition	–	–	–	66	45	I agree
		Ratio	–	–	–	59%	41%	
5	The integration of accountant and artificial intelligence achieves the best financial results	Repetition	–	–	–	16	95	I strongly agree
		Ratio	–	–	–	14%	86%	
6	The presence of regulatory controls reduces the risks of using artificial intelligence	Repetition	–	–	1	22	88	I strongly agree
		Ratio	–	–	09%	20%	79%	
7	Accounting standards contribute to regulating the use of artificial intelligence	Repetition	–	–	–	32	79	I strongly agree
		Ratio	–	–	–	29%	71%	
8	Continuous training for accountants is necessary to deal with modern technologies	Repetition	–	–	–	12	99	I strongly agree
		Ratio	–	–	–	11%	89%	
9	Striking a balance between artificial intelligence and professional judgment is essential to ensure quality performance	Repetition	–	–	–	10	101	I strongly agree
		Ratio	–	–	–	9%	91%	
10	Applications of artificial intelligence lead to the completion of accountants' tasks and consistency in applying these tasks, not disrupting them	Repetition	6	17	48	20	20	
		Ratio	5%	15%	44%	18%	18%	Neutral

4. Discussion

The results of the research sample indicate that there is a discrepancy in the opinions of the sample members about the extent of the threat of artificial intelligence to the field of accounting. The results showed that (68%) believe that excessive reliance on smart systems may lead to weak accountant skills. Also, (81%) of the sample indicated that reliance on the use of artificial intelligence may gradually lead to the loss of some human expertise among those who agree and strongly agree.

The majority of the sample members rejected the idea that artificial intelligence directly threatens accounting jobs, as the percentage of those who reject it reached (53%). This indicates that the research sample believes that artificial intelligence changes the nature of accounting work more than it completely eliminates jobs, a concern also discussed in research on the future of accounting and auditing work [20].

The results also confirmed the importance of establishing supervisory controls and legislation that regulate the use of these modern technologies, with a percentage of (100%) among those who agreed and strongly agreed, which reflects that data security represents a major challenge when using artificial intelligence applications.

The results also showed an agreement of (89%) on the importance of continuous training for accountants to deal with modern technologies, with an additional percentage of (91%) confirming the necessity of achieving a balance between artificial intelligence and professional judgment to ensure quality performance. These results indicate the research sample's awareness of the importance of developing accountants' skills in responding to technical developments and benefiting from artificial intelligence without negatively affecting the professional role of the accountant [13].

The research results show that establishing appropriate supervisory controls to achieve integration between technology and human experience helps make electronic systems not a complete threat to accounting, but rather imposes challenges that require the development of professional skills. This result reinforces the importance of regulatory and accounting-standard frameworks in technology-enabled practice [21].

5. Conclusion

The theoretical and practical findings indicate that artificial intelligence is better understood as a tool for developing the accounting profession than as a direct threat to accountant independence. AI contributes to automating routine accounting processes, accelerating task completion, improving the accuracy of financial statements, reducing human errors, and enhancing the quality of accounting information used by management and stakeholders. It can also support accountant independence by providing accurate and more objective data and by reducing the influence of personal bias in data-based professional decisions; however, professional judgment and human experience remain essential for interpreting results and making accounting decisions because AI cannot completely replace the accountant. The strongest outcomes are therefore expected from integration between human expertise and intelligent technologies, while excessive reliance on smart systems may weaken some professional skills and reduce the traditional human role in certain activities. Data security, privacy, algorithmic bias, and the need for transparent and accountable systems remain important challenges. Accordingly, institutions should adopt AI to improve accounting efficiency while maintaining effective human oversight, provide continuous training and workshops to strengthen accountants' scientific, technical, analytical, and professional capabilities, establish supervisory controls and legal or professional regulations to protect financial data and preserve confidentiality, and maintain a deliberate balance between automated outputs and independent professional judgment. Accounting and auditing curricula should also be updated in line with technological developments, organizational infrastructure and accounting systems should be modernized to support responsible AI applications, and accountants should receive greater awareness of safe AI use and the risks of over-reliance and algorithmic bias. Further research should continue to examine the long-term impact of artificial intelligence on accountant independence, professional judgment, employment roles, and the professional risks associated with increasingly automated accounting systems.

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