

RESEARCH
ARTICLE**The Role of Technology and Artificial Intelligence in Simplifying Accounting Processes****Abla Kouadri**

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Technology and Artificial Intelligence, Accounting Processes.

Abstract

This study aims to understand the role and contribution of technology and Artificial Intelligence in simplifying the Accounting Processes. We surveyed the opinions of professionals and academics, as they are the group most interested in the subject of the study. Data was collected through a questionnaire, which was distributed manually and electronically. A total of 91 questionnaires were distributed and retrieved after the study sample responded. After analyzing and interpreting the data, it becomes clear that Technology and Artificial Intelligence plays an important role in improving efficiency and simplifying the Accounting Processes, as most of the sample members tended to agree and strongly agree with the statements across all sections of the questionnaire.

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I- Introduction:

Throughout history, Technology and artificial intelligence have witnessed a prominent and gradual development, as they have played a pivotal role in various fields of human activities, which led to facilitating and meeting their multiple needs. It serves the growth and development of civilizations, and through time, these technologies have witnessed a tremendous revolution in terms of their progress and speed of spread, as they have affected many different fields and activities, including financial, accounting, management and everything that lays under the name of the economy.

Accounting is one of the most prominent systems that govern and conduct human financial activities since ancient times. It has gone through many stations that made it the focus attention of researchers and writers. Today, Accounting is one of the most important means of economic progress for countries since it reflects the quality of the state's Accounting System and the extent of its commitment and financial and accounting development. using various advanced means such as technology and artificial intelligence, which are currently witnessing a wide spread, led to the strengthening of the competitive environment between companies to obtain it owing to its advanced features and characteristics.

The problem of the research:

Based on what was mentioned earlier about the role of technology and artificial intelligence in improving efficiency and simplifying Accounting Processes, and on the survey of opinions of some professionals and academics within different bodies in the wilaya of Bordj Bou-Arredj for the year 2024, the formulation of the problem is as follows: *What is the role and contribution played by Technology and Artificial Intelligence in improving efficiency and simplifying Accounting Processes?*

The Study Questions:

Based on the problem raised, we present the following questions:

- ✓ How do technology and artificial intelligence contribute to raising efficiency and simplifying the accounting processes of economic companies?
- ✓ What role do technology and artificial intelligence play in developing and enhancing the efficiency of the accounting system?
- ✓ What are the effects of technology and artificial intelligence on accounting processes and quality?

The Study hypotheses:

Technology and artificial intelligence contribute to the simplification of accounting processes.

The Objectives of the study:

This study represents a set of important data, which were divided into a theoretical part and an applied part that work together to highlight the role of technology and artificial intelligence in simplifying Accounting operations. Therefore, this study aims at the following:

- ✓ Highlighting the main role of technology and artificial intelligence applications in simplifying accounting processes.
- ✓ Explain the importance of technology and artificial intelligence in simplifying accounting processes.
- ✓ The importance of the study: The importance of this study lies in the fact that its subject is one of the most important areas of scientific research in the modern era, which is characterized by comprehensive digitization and high speed.
- ✓ The need to keep pace with technologies and updates that occur at the global level to avoid delays in joining the wave of modernity and development.
- ✓ Expanding and spreading the culture of technology and artificial intelligence in order to integrate with it well and quickly. Putting the necessary additions and advancing the field of accounting for the better and easier.
- ✓ Opening new horizons that change the traditional form of accounting operations to improve financial performance.

II- Concepts about technology and artificial intelligence

1. The concept of technology and its stages of development:

1.1. Definition of technology: many researchers have discussed the idea of technology. They differed in opinions and agreed on others. They differed towards it because of their different specialization and the development of the features of technology itself, but they agreed that the nature of technology is as old as human research itself since it was considered as one of the means discovered by man during his primitive activity in nature, and then it became a tool used to serve him and help him to meet his growing needs. Its use evolved later on and prevailed to

the point that it became very important in his public and private life. This led some scholars to believe that it is responsible for most of the changes that occur in modern society.¹

This is in terms of content, but in terms of the word itself, it has been used recently, as it is mentioned in some sources that the first appearance of the term "technology" (Technologie) was in Germany in (1770 AD), and it is a compound of two syllables: (techno) which means in the Greek language "art" "or handmade" and (Logie) means "science" "or theory". The combination of the two syllables results in the meaning of "the science of manufacturing systematic knowledge in the art of industry or applied science."²

Hussein Kamel Bahaa El-Din summarizes his vision of the concept of technology, saying: "Technology is a thought, performance and solutions to problems before it is just the acquisition of equipment." Both "Maher Ismail Sabry" and "Salah El-Din Mohamed Tawfik" believe that technology is not just a science or the application of science or just devices, but it is much more general and comprehensive, it is a human activity that includes the scientific side and the applied side.

Through this presentation, we can define technology as: a human effort and a way of thinking about the use of information, skills, experiences and human and non-human elements available in a particular field and their application in discovering technological means to solve human problems, satisfy his needs and increase his abilities.³

During the second half of the twentieth century, there was a technological development in all fields, whether industrial, military or practical... Accounting and finance have benefited from modern technology, which has resulted in a large number of devices and programs called (Accounting Techniques) and these means have spread in institutions and companies of all kinds and classifications.

1.2. Stages of the concept of technology:

Technology has gone through many stages, and the most important of these stages are the following:

➤ **Emerging technology stage:** Emerging technology is a term used to describe new technology that is currently being developed or expected to be implemented within five to ten years, and may also refer to the continuous development of current technology. It is also used to express technologies that are expected to make a difference and to have a social or an economic impact.

Emerging digital technologies have created new opportunities with legal challenges regarding copyright, trademarks, patents, royalties and licenses. For example the development of new digital communication media has given rise to issues related to digital reproduction and the distribution of copyrighted works⁴.

➤ **Pacing (Rapid) technology stage:** is technology in the early development stage. In the 80s, the prominent examples of speed technologies were: computer-integrated manufacturing technology, and neural network technology such as a computing technology different from traditional vonNeumann computing based on algorithms.

In other words, it is a technology that is being accepted very quickly, gathering a large number of users since it has gained initial trust but still needs to make a major development before it can reach its full potential⁵.

➤ **The main technology stage:** the main technology (in English Key technology), which is a technology that has greatly affected the progressive level of man, and is a safe and reliable technology concerned with intellectual property, including patents, trademarks, copyrights, trade secrets and others⁶.

➤ **The Base technology stage:** is the foundation on which companies rely but is no longer necessary for competition, because it is widely available to competitors across the industry. The best example include CRT displays and genetic engineering applied to plant protection.

2. The definition of artificial intelligence and its stages of development

1. Nour adine Zamam, Sabah Sulaymani, the development of the concept of technology and its Nour adine Zamam, Sabah Sulaymani, the development of the concept of technology and its uses in the educational process. Journal Humanities and Social sciences, June 11th, 2013. University of Mohammed Khidhar Biskra. Page 165.

2. Uses in the educational process. The same source.

³ Nour adine Zamam, Sabah Sulaymani, the development of the concept of technology and its uses in the educational process <http://gafsa.jeun.fr/t7927-topic> the same source page 165.

⁴ Baraa Al Ali, November 14th 2021, Scientific article, stages of development of technology <http://mawdoo3->, date of access March 3rd, 2024.

⁵ Baraa Al Ali, November 14th 2021, Scientific article, stages of development of technology <http://mawdoo3->, date of access March 3rd, 2024. The same source.

⁶ Key technology definition », Law Insider, Retrieved, 29/9/2021. Edited 2024. Date of access March 5th, 2024. <http://www.lawinsider.com>

2.1. The definition of artificial intelligence: The term artificial intelligence consists of two words: intelligence and artificial. Webster's electronic dictionary has defined intelligence literally as the ability to learn, understand, deal and interact with conditions and differences. The same source stated in another definition that intelligence is the ability to employ knowledge to process an environment.⁷

When the two terms are merged, the term artificial intelligence appears in the sense of intelligence that simulates the intelligence that exists in nature by doing something, which is programming. as the word artificial is from imitation in the sense of simulating something that exists in nature, which is the opposite of natural.

Scientists have different definitions of artificial intelligence, some have attributed this difference to the lack of agreement on the definition of human intelligence itself, so how about artificial intelligence?

Dan w. Patterson included many definitions within his definition, in which he said that artificial intelligence is a type of computer science that is concerned with the study and formation of computer systems that have the capacity and ability to provide very useful and important conclusions about the problems developed, as these systems can understand

natural languages or understand living perception and other possibilities that need intelligence when implemented by human beings⁸.

We conclude from this definition that the basis of artificial intelligence is to enable the machine to reach certain conclusions that humans will reach after carrying out a number of mental operations of perception, thinking and deciding. The difference is that the machine can process data and information during very short times. This speeds up making decision process accurately and efficiently.

It is also defined as a set of techniques and methods used in providing machines capable of simulating human intelligence, using powerful algorithms to provide effective and reliable solutions to users by combining software and hardware. Artificial intelligence mobilizes interdisciplinary knowledge.⁹

2.2. The stages of the development of artificial intelligence:

Artificial intelligence has gone through many historical stages and stations that we mention as follows:

- ✓ Theoretical foundation and foundation stage 1950-1960: We can trace the foundations of artificial intelligence to the mid-twentieth century, with the emergence of concepts that formed this field. In 1956, the Dartmouth Conference was an official starting point for artificial intelligence, as researchers sought to develop machines that could mimic human intelligence. Pioneers, including Alan Turing and John McCarthy, focused on laying the foundations for symbolic thinking and problem-solving algorithms¹⁰.
- ✓ Peak and low phase 1960-1980: During the sixties and seventies, symbolic artificial intelligence took over the scene, also known as ancient artificial intelligence (GOFAD), where researchers focused on representing knowledge using symbols and establishing rules based on systems to solve problems. Expert systems showed the important application of artificial intelligence at this stage on the possibility of repeating human experience in certain areas¹¹.
- ✓ The transition to knowledge 1980-1990: In the eighties, a period of stagnation happened where there was a lack of funding and low interest due to the lack of fulfillment of expectations. However, the period of renewed interest survived in the nineties thanks to innovations in the field of neural networks and machine learning. This shift from rules-based systems to a data-driven approach formed the basis for modern artificial intelligence applications¹².
- ✓ The development of neural networks and machine learning 1990-2000: interest in artificial intelligence was renewed, driven in large part by advances in machine learning, which is a subdivision of artificial intelligence that includes the use of algorithms to improve system performance automatically relying on data¹³.
- ✓ Modern artificial intelligence stage from 2000 AD to the present day: One of the most important features of this stage is the development of natural language processing methods and emotion analysis. It allowed the

⁷ Farah Walid Darwish Ereikete, Master's degree message; Concepts and Applications of Artificial Intelligence Included in Technology books for Secondary Phase in Palestine, Jerusalem university, 2022. Mariam-Webster. (n.d.). Intelligence. in merriam-webster.com. Dictionary. Retrieved on April 17th, 2022 from <https://www.merriamwebster.com/dictionary/intelligence> date of access march 8th, 2024.

⁸ Previous reference Farah Walid Ereikete, Othmania Amina, 2019, Artificial Intelligence Concepts. Applications of Artificial Intelligence as a New Trend to Enhance the Competition of Business Organization1 pages 9- 22.

⁹ Abadi Ibrahim, the Ability of Artificial Intelligence in Bank Operations, Master Memo, Ibn Khaldoun University- Tiaret- Algeria, 2022-2023 page 8

¹⁰ Mohamed Alkhazami Aziz, the Role of Artificial Intelligence in Social and Human Sciences, Siemar Scientific Magazine, number 1 of December 2nd, 2023 Ain Chams University page 14.

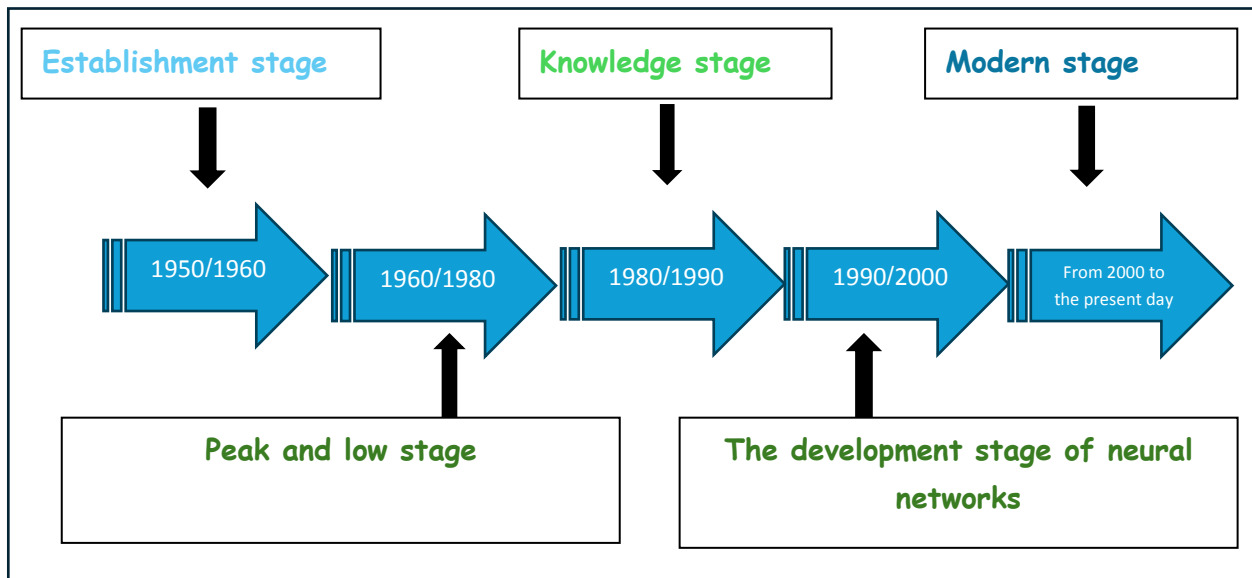
¹¹ The previous source Mohamed alkhazami Aziz. Page 15

¹² The previous source Mohamed alkhazami Aziz. Page 15

¹³ Mohamed Mouhend , a scientific article, The History of Artificial Intelligence from the beginning of our day, <https://www.mohdmohana.com/>- date of access March 29th, 2024. At 23h.

integration of natural language processing (NLP) into artificial intelligence systems, human language analysis and communication. Emotion analysis has become a branch of natural language processing in understanding public opinion, social trends and cultural dynamics. In addition to the development of neural computing systems and their applications¹⁴.

Figure (01): Chronology of artificial intelligence



Source: Prepared by researchers

III- Accounting Operations:

The accounting system includes the processes of recording and classifying operations, designing documents and books, and determining the procedures that are represented in collecting various information related to the Authority's financial transactions, methods of recording, means of control over them and methods of presenting their results.¹⁵

The accounting operations are essential in the business world, as they represent the basic processes that contribute to the recording and analysis of financial statements. This definition involves operations such as revenues, expenses, profits and losses, and recording them accurately to ensure the reliability of the data. The effectiveness of these operations depends on the availability of a strong accounting system and the use of advanced accounting methods and tools to ensure transparency and accuracy in financial reporting. We can summarize the overall accounting operations in the following points:

- ✓ to make the necessary adjustments and closing entries;
- ✓ Preparation of financial statements, which include:
 - list of activities "list of income and expenses";
 - income statement;
 - list of changes in own funds (income);
 - appendices;
 - balance sheet statement;
 - statement of financial flow;

IV- the role and relationship of technology and artificial intelligence in simplifying accounting processes.

1. Enhanced technological systems in improving accounting processes:

¹⁴ The previous source :Mohamed Alkhazami Aziz page 16

¹⁵ A scientific article, Fallah Mohamed Al-Qara , the Code of Finance and Administration
<https://sqarra.woodpress.com/>- date of access April 22nd , 2024. At ten o'clock a.m.

Today, we are living on the paths of a fast digital age, where technology has become an integral part of any field of accounting and doing its operations in the traditional form is over. Technology has revolutionized accounting, making it more efficient, accurate, simple and more flexible with changes in the business landscape through many systems and techniques that we put up for study.

1.1. Cloud computing and remote access in accounting: The application of the cloud computing method is a major turning point in the field of accounting in terms of control and supervision of data, resources and software, as well as the best use of devices. There is no need to buy it, which in turn leads to reducing costs, whether costs of maintenance or software updates¹⁶.

The cloud computing method also has a positive impact on the quality of the financial report. Studies have agreed that the application of cloud computing in business organizations helps to comply with the requirements of the International Financial Reporting Standards (IFRS) in terms of the qualitative characteristics of accounting information, and it also enhances the process of transformation from periodic reports to immediate reports and supports the effectiveness of the accounting system. In addition to this, *the cloud computing method* has an important impact on the internal control structure thanks to the effectiveness of the performance of the control structure. All these factors have a positive impact on the integrity, speed and quality of financial reporting¹⁷.

1.2. Automation in accounting processes: Automation has revolutionized many areas, including the field of accounting. Now, it is possible to automate manual and time-consuming accounting processes, which has led to increased efficiency, accuracy and cost savings. In this section we will reveal the role of automation in accounting processes and the management and analysis of financial information¹⁸.

✓ **Automate data entry and bookkeeping:** The data entry and bookkeeping process is a time-consuming task. With the use of automation tools such as optical character recognition (OCR) and automated process automation (RPA), these processes can be simplified and error-free. RPA technology, on the other hand, can automate repetitive tasks such as updating ledger entries, settling accounts, and generating financial reports, by automating these tasks, accountants can focus on more strategic and value-added activities.

✓ **Enhance financial reporting and analytics:** Automation plays an important role in enhancing financial reporting and analytics. With the help of accounting software and advanced analysis tools, data can be collected, organized, and analyzed in real time. This allows accountants to create accurate financial statements, identify trends and make decisions instantly.

✓ **Improve compliance and audit pathways:** Automating accounting significantly improves compliance with regulatory requirements and simplifies the audit process. Accounting software equipped with built-in compliance features ensures that financial records are accurate, complete, and compliant with accounting standards. This reduces the risk of non-compliance, in addition to providing automated audit trails a transparent record of all financial transactions, making it easier to track and verify information during the audit process.

The following table shows the difference between the traditional form of accounting and accounting through automation (table 2)

Standard	Accounting by automation	Accounting in the traditional form
Used Technique	Specialized accounting software and applications, cloud computing	Hand-held spreadsheets, paper, and desktop software
Time and efficiency	Needs less time, fast and accurate	It takes a long time and is disposed to to human errors
Accuracy and error reduction	High precision and reduces human error High precision and reduces human error	Prone to input and calculation errors
Data Access	Data can be accessed from anywhere, anytime	Limited by space and time

¹⁶ Ahmed Mohsen Ismail, Contemporary Technological Methods in Accounting thoughts and Their Risks, January 1st, 2023, Faculty of Commerce Port Said University- Accounting Department, Page:347.

¹⁷ The previous source of Ahmed Mohsen Ismail page : 347 .

¹⁸ A scientific article sectoin10,The Role of technology in Modern Accounting , <https://fastercapital.com-> date of access April 10th, 2024, at 20 a.m.

Safety	High security with encryption and security technologies	Less safe, vulnerable to loss or theft
Storage and record retention	Unlimited, easy to organize and search	Limited paper and electronic storage, difficult to organize and search
Adapting to legislation	Easy adaptation to legal changes and legislation	Needs manual adjustments and difficulty adapting

Source: Prepared by researchers

1.3. Artificial intelligence and machine learning in accounting:

The importance of adopting the entrances to business intelligence systems, in particular the extent to which artificial intelligence systems contribute as one of the entrances to business intelligence systems and the importance of its application in the field of e-commerce and financial management of business operations, which reflects positively on maximizing profits, forecasting and maximizing sales, inventory management, detecting financial fraud, and managing financial portfolios for business establishments, and this study concluded with a set of important applications supporting all accounting operations and activities as follows¹⁹:

- ✓ Cha bot: They are human-machine chat programs that have the ability to learn and are used to improve customer satisfaction and provide the best recommendations and solutions to practical problems.
- ✓ Managing financial and non-financial data for customers: "Data Customer Handling through learning algorithms that have the ability to conduct an analytical study on previous data related to sales, human resources, marketing and customers, which reflects positively on profit rates, sales and good use of resources.
- ✓ Recommendation systems, which are machine learning algorithms to analyze previous customer data related to customer selection and behavior, predict their purchasing behavior and the most appropriate products for them, which is more applied in the field of e-commerce.
- ✓ Inventory management through artificial intelligence algorithms, where the analytical study of previous sales data and finding all correlations between current and future sales, which supports the performance of financial managers and improves inventory management performance.
- ✓ Customer relationship management "CRM", which is a strategic methodology for making successful deals with customers, predicting the best ways to deal with them, identifying trends, and planning buying and selling activities with the help of machine learning techniques.
- ✓ Scoring Credit, Underwriting Loan, and Portfolio Management algorithms to analyze current financial statements and predict future financial statements, which reflects the credibility and transparency of published financial statements and statements. Machine learning techniques associated with human resource management in business establishments enable them to innovate new training techniques for employees and provide them with skills to improve business performance. Cybersecurity is a machine learning algorithm capable of detecting vulnerabilities in business systems to provide all appropriate security solutions.

V- The Field study: (applied study)

1. The population and sample of the study:

It is a complete group of individuals or units whose characteristics and behavior are to be studied. It also includes a subdivision of the study population represented in the sample, which must be representative of the community as much as possible to generalize the results. Based on the problem of this study and its objectives, the target community in this case consists of a group of academics and professionals in the field of accounting in the wilaya of Bordj Bou Arreridj distributed over different bodies, including the University of Bordj Bou Arreridj, Sonelgaz and Condor.

Accordingly, 100 copies of tmanual and electronic questionnaire were distributed. The number of questionnaires retrieved was 91 copies and 09 copies of the questionnaire were lost. So, only 91 copies were relied on for study.

¹⁹ A previous source of Amani Kamel Mohamed Ibrahim pag227.

Table 02: the number of questionnaires distributed to the sample members

Percentage	Number	Statement
100%	100	Number of questionnaires
91 %	91	Retrieved questionnaires
09%	09	Lost questionnaires

Source: Prepared by researchers

2. Study variables:

2.1. Independent variables:

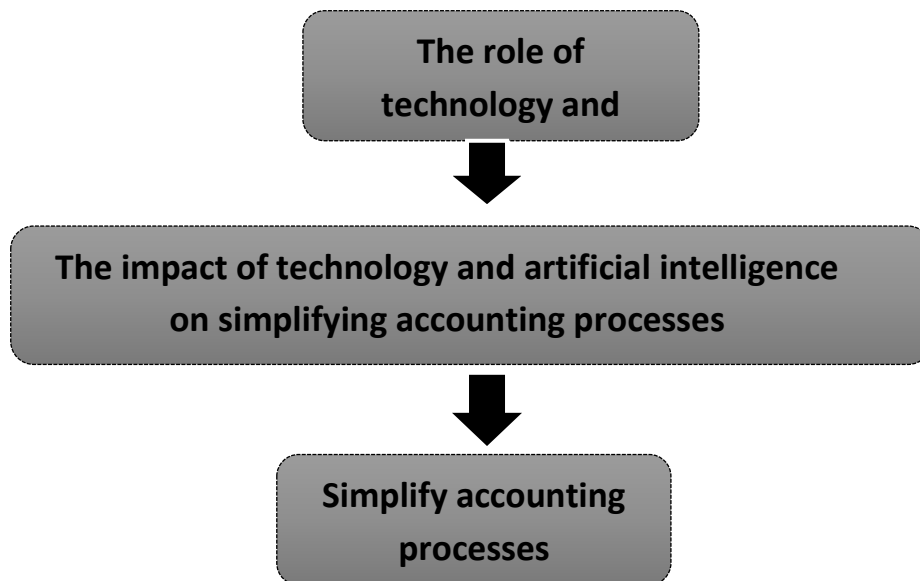
- ✓ The role of technology and artificial intelligence in simplifying accounting processes

2.2. Dependent variable:

- ✓ Simplification of accounting processes

Accordingly, we form the study model as follows

Figure 11: Study Model Outline:



Source: Authored by researchers

3. **Study scale:** According to the Likert five-point scale, we can obtain the weighted average by determining the smallest value and the largest value in order to calculate the range through the following process:

$$\text{Range: } 5 - 1 = 4$$

$$\text{then we divide the range by the scale scores: } 5 / 4 = 0.80$$

then we add the minimum score of the scale (1) to the value obtained to obtain the scores.

Table (03) : Likert pentameter scores

Grade	Arithmetic mean domain
-------	------------------------

Very low	Between 1 and 1.80
Low	Between 1.80 and 2.60
Average	Between 2.60 and 3.40
High	Between 3.40 and 4.20
Very high	Between 4.20 and 5

Source : Prepared by researchers

VI- The presentation of the results of the study

1. Data analysis and testing of the study hypotheses:

To analyze the data and test the research hypothesis, repetition tables were used, arithmetic averages and standard deviations were calculated, and the sample direction and level score were determined.

1.2. The results of the presentation and analysis of the results of the field of the role of technology and artificial intelligence in simplifying accounting processes:

Based on the data of the questionnaire, the discharge of the sample answers, the calculation of averages and their standard deviation, as well as the percentage, direction and degree of each statement from the questionnaire to identify the role of technology and artificial intelligence in simplifying accounting processes, the results shown in the following table were reached:

Table 04: Shows the arithmetic mean and standard deviation to estimate the response of the respondents to the field of the role of technology and artificial intelligence in simplifying accounting processes.

Sample direction	Level Grade	Percentage	Standard deviation	Arithmetic mean	Paragraphs	Number
Totally OK	Very high	94.8 %	0.44	4.74	Technology and AI help streamline repetitive tasks	q1
Totally OK	Very high	86.6 %	0.71	4.33	Technology and artificial intelligence help detect errors and potential fraud in financial statements	q2
Ok	high	82.8 %	0.78	4.14	Technology and AI helped ensure compliance with changing regulations	q3
Totally OK	Very high	86.6 %	0.61	4.33	Technology and artificial intelligence help in real-time access to financial data	q4
Ok	high	76 %	1.07	3.80	Technology and AI	q5

					help secure document sharing	
Totally OK	Very high	87.4 %	0.70	4.37	Technology and artificial intelligence help organize and facilitate public accounting processes	q6
Totally OK	Very high	88.2 %	0.76	4.41	Technology and artificial intelligence help facilitate the management of daily and monthly reports	q7
Ok	high	82.8 %	0.64	4.14	Technology and artificial intelligence help track revenues and expenses and prepare financial statements	q8
Totally OK	Very high	84.2 %	0.72	4.21	Technology and artificial intelligence help facilitate information recording and financial reporting	q9
Totally OK	Very high	85.4%	0.38	4.27	The axis as a whole	

Source: Prepared by researchers based on SPSS data

from the results shown in the table above, we see that the average attitude of the sample members towards the questions was as follows:

The arithmetic average of the first question was estimated at (4.74) and this by (94.8%) so that the direction of the sample members towards him was completely OK, while the degree of his level was very high, while with regard to the second question, his average account was estimated at (4.33) by (86.6%) and the direction of the sample towards him was completely OK and the degree of his level was very high, and with regard to the third question, the average of his account was estimated at (4.14), This is by (82.8%) and the sample members went towards him with an OK, with a high level, as for the fourth question, his average was estimated at (4.33) and this by (86.6%), heading towards him completely OK while the degree of his level was very high, and for the fifth question, his average account was (3.80) by (76%) heading towards him with OK, and his level was high, while the arithmetic average of the sixth question was estimated at (4.37), and it was by (87.4) and the sample members went towards him completely agreed, while the degree of the level was high Very, the arithmetic average of the seventh question was estimated at (4.41) and this is (88.2%) and the attitude of the sample B was completely OK, at a very high level, while the eighth s question account was (4.14) which is (82,8%), with a high level, and the final question was high, so that the sample personnel towards him was fully approved and the average account is (4.21) by (84,2%), and its level has been very high

As for the axis as a whole, the average of its calculation was estimated at (4.27) with a standard deviation of (0.38), and the sample members tended towards it with completely agree, and the degree of the level was very high, and through the results of this table we conclude an explanation that technology and artificial intelligence have a major role in simplifying accounting processes, due to the fact that technology and artificial intelligence systems are able to simplify complex accounting processes by smart systems algorithms and others, and reduce effort through many ways, including automation, robotics, cloud computing and saving time Due to real-time data, unlike manual tasks, all this serves the interests of enterprises and improves their performance.

Table of frequencies regarding the responses of the sample members for the first axis:

T able 5 :Distribution of participants in the study according to their agreement on the paragraphs of the axis of the role of technology and artificial intelligence in simplifying accounting processes.

Percentage	Number	Approval levels
00.24	02	Completely disagree.
03.06	25	Disagree
09.03	74	neutral
44.33	363	I agree
43.34	355	Totally agree
100	819	The total

Source: Prepared by researchers based on SPSS data

From the data of the above table, we find that:

- ✓ 44.33% of the study sample agree on the contribution of technology and artificial intelligence in simplifying accounting processes;
- ✓ 43.34% of the study sample fully agree on the contribution of technology and artificial intelligence in simplifying accounting processes;
- ✓ 09.03% of respondents choose neutrality regarding the contribution of technology and artificial intelligence in simplifying accounting processes;
- ✓ 3.06% of the study sample disagrees with the contribution of technology and artificial intelligence in simplifying accounting processes;
- ✓ 0.24% of the respondents do not fully agree The study sample members on the contribution of technology and artificial intelligence in simplifying accounting processes.

Therefore, the majority of the study sample by collecting the percentage of strongly agree and agree, which is approximately 88%, agree with the hypothesis of the extent to which technology and artificial intelligence contribute to simplifying accounting processes.

VII- Conclusion

It is worth noting that accounting processes have been severely affected by technology and artificial intelligence techniques, as they help bodies and institutions to simplify these processes and raise their efficiency and improve them, which reduces effort and shortens time, as it has become necessary to rely on these technologies in a way that requires the modern digital age so that these institutions can impose themselves and extend their dominance, and among these modern technologies we touched on cloud computing and its role in accounting processes, and the role of automation and robotics in the large assistant it provides, and we also distinguish Some newly emerging technologies such as blockchain technology that will revolutionize the field of accounting and its operations, and machine learning and artificial intelligence have the greatest role, which enables even to dispense with humans, even slightly, in most of these accounting operations, and to talk about data science and analysis, we conclude that it is one of the measures of high quality of accounting information and operations. It also reflects the future image of facilities, and of course we cannot forget that cybersecurity is one of the most important factors to maintain the necessary accounting data and information, all these methods and methods are considered an approach to reduce errors, shorten time and effort, and improve dealing with customers and others.

The results of the applied study:

- The members of the study sample are most professional, and the largest percentage was for those who have experience between 11 and 15 years, and most of the members of the eye are specialists in accounting with a master's degree, which constitutes the majority.
- Through the results of the responses of the sample members on the paragraphs of the questionnaire, and by measuring the arithmetic average of these answers, it becomes clear to us that most of the respondents' answers were heading towards completely agree, research The degrees of the level of the Leckert pentagram table are located in the field of the very high percentage.
- Most of the study sample members are moving completely in agreement and agreement towards the studied questionnaire axes, which indicates the encouragement of accounting professionals and academics to use these techniques.

- Through the results of the survey of the opinions of professionals and academics, it is clear that most of them positively recognize the role of technology and artificial intelligence in simplifying and improving the efficiency of accounting processes and prefer to apply and generalize them at a high level.
- The study proved that most of the respondents had the direction of their answers in accordance with the paragraphs of the first axis, which shows the validity of the following hypothesis: "Technology and artificial intelligence contribute to simplifying accounting processes." Through the results of the survey of the opinions of professionals and academics, it is clear that most of them positively recognize the role of technology and artificial intelligence in simplifying and improving the efficiency of accounting processes and prefer to apply and generalize them at a high level. The study proved that most of the respondents had the direction of their answers in accordance with the paragraphs of the first axis, which shows the validity of the following hypothesis: "Technology and artificial intelligence contribute to simplifying accounting processes."

References :

1. Nour adine Z., Sabah S., The development of the concept of technology and its uses in the educational process. *Journal Humanities and Social sciences* , 2013. University of Mohammed Khidhar Biskra . Page 165.
2. Baraa Al Ali, November 14th 2021, Scientific article , stages of development of technology <http://mawdoo3-> , date of access March 3rd, 2024.
3. Previous reference Farah Walid Ereikete, Othmania Amina, 2019, Artificial Intelligence Concepts. Applications of Artificial Intelligence as a New Trend to Enhance the Competition of Business Organization 1 pages 9- 22.
4. Abadi Ibrahim, the Ability of Artificial Intelligence in Bank Operations, Master Memo, Ibn Khaldoun University- Tiaret- Algeria, 2022-2023 page 8
5. Mohamed Alkhazami Aziz, the Role of Artificial Intelligence in Social and Human Sciences, Siemar Scientific Magazine, number 1 of December 2nd, 2023 Ain Chams University page 14.
6. Mohamed Mouhend , a scientific article, The History of Artificial Intelligence from the beginning of our day, [https://www.mohdmohana.com/-](https://www.mohdmohana.com/) date of access March 29th, 2024. At 23h.
7. A scientific article, Fallah Mohamed Al-Qara , the Code of Finance and Administration [https://sqarra.woedpress.com/-](https://sqarra.woedpress.com/) date of access April 22nd , 2024. At ten o'clock a.m.
8. Ahmed Mohsen Ismail, Contemporary Technological Methods in Accounting thoughts and Their Risks, January 1st, 2023, Faculty of Commerce Port Said University- Accounting Department, Page: 347.
9. The previous source of Ahmed Mohsen Ismail page : 347 .
10. A scientific article sectoin 10, The Role of technology in Modern Accounting , <https://fastercapital.com-> date of access April 10th, 2024, at 20 a.m.
11. A previous source of Amani Kamel Mohamed Ibrahim pag 227.
12. Raab, M., Schinke, R., & Maher, C. A. (2023). Technology Meets Sport Psychology: How Technology and Artificial Intelligence Can Shape the Future of Elite Sport Performance. *Journal of Sport Psychology in Action*, 15(2), 63-69. <https://doi.org/10.1080/21520704.2023.2287324>
13. Naoki Saijo, Takehiro Fukuda & Makio Kashino. (2025) The temporal structure of multiple visuomotor processes in baseball batting: insights from a virtual reality system. *Frontiers in Psychology* 16. Crossref
14. Aden Kittel, Riki Lindsay, Peter Le Noury & Luke Wilkins. (2024) The Use of Extended Reality Technologies in Sport Perceptual-Cognitive Skill Research: A Systematic Scoping Review. *Sports Medicine - Open* 10:1.
15. Cinar, A. E. (2024). The language of the law vs. the language of the computer: a bilingual model of legal education in the age of technology and artificial intelligence. *Law, Innovation and Technology*, 16(2), 558-598. <https://doi.org/10.1080/17579961.2024.2392938>