# THE ROLE OF ARTIFICIAL INTELLIGENCE IN IMPROVING THE QUALITY OF THE TAX ACCOUNTING SYSTEM FOR JOINT STOCK COMPANIES-AN APPLIED STUDY IN THE GENERAL TAX AUTHORITY

Anwar Hashem Abboud Najaf Technical Institute, Al-Furat Al-Wasat Technical University anwar.abboud@atu.edu.iq

Mohamed Nasr Hussein Al-Jayed Musayyib Technical Institute, Al-Furat Al-Wasat Technical University mohammed.huseen.mis@atu.edu.iq

Ameer Ageed kadhim Al-ardawe Faculty of Administration and Economics, University of Kufa, Iraq ameera.alardawe@uokufa.edu.iq

#### Abstract

The rapid developments in the field of technology and the trend towards artificial intelligence and its employment in various areas of life, especially the field of economic activities, and the process of financial transfers and economic unit data has become available to everyone via the Internet. It has become necessary for the General Authority for Taxes to develop its work programs to keep pace with these developments and design electronic programs that help in the success of The process of counting taxpayers and implementing the tax accounting process, where the research problem arises through the General Tax Authority's reliance on traditional procedures in the tax accounting process, which does not help in detecting new incomes or adopting a tax accounting system that saves time and effort in collecting the tax. One of the most important conclusions of the research is that the optimal use For electronic programs that help in achieving speedy completion of tax examination operations and completing them with high efficiency, as well as helping in developing the methods used in the tax examination process. The most important recommendations made by the researchers are developing the methods used in the tax audit and examination process through designing electronic programs that are characterized by high accuracy to audit the financial data and information of taxpayers and verify their accuracy.

Keywords: artificial intelligence, tax accounting system, tax examination.

#### Introduction

The rapid developments in the field of technology and the trend towards artificial intelligence is one of the most important things that the entire world is focusing on, as it provides important information, speed of completion, analysis, and other important matters, as the whole world has become interested in the digital transformation of transactions, and this requires that tax accounting systems keep pace with this rapid development in the field of technology, or what is known as artificial intelligence. Through this research, artificial intelligence and its effective role in developing the tax accounting system in joint-stock companies will be identified, which contributes to completing the tax accounting process faster and more accurately and shortening many procedures that cause delays in work and require greater effort.

## 1. Research methodology and some previous studies

- **A. Research problem**: The shareholding companies charged with paying tax are required to submit their financial statements to determine taxable income. Thus, the tax administration must provide the best services to these companies because of their role in achieving public revenues. Therefore, the research problem focuses on the development occurring in financial transactions, which It is not matched by development in the tax accounting system, as it has been observed that reliance on traditional procedures is used in the tax accounting process, as well as the process of tax inventory and determining new taxable incomes .
- **B.** Research objectives: The research is based on the following objectives:
- Explaining the concept of artificial intelligence, its importance, and its fields of work in the tax accounting process.
- Explaining the quality of the tax accounting system in joint stock companies and how to improve its quality.
- Determine the importance of artificial intelligence in the tax accounting process.

## C. Research importance: The importance of research can be determined through:

- Explaining the importance of keeping up with developments occurring as a result of the use of artificial intelligence in areas of work.
- Determine the requirements for using artificial intelligence in the tax accounting process.
- Identifying the necessary tasks in the General Tax Authority to improve the quality of the tax accounting system.
- **D.** Research hypotheses: The research is based on the following hypotheses:
- **The first hypothesis:** "There is a significant correlation between artificial intelligence and the tax accounting system.
- **The second hypothesis**: "There is a significant impact relationship between artificial intelligence and the tax accounting system
- **E. Research sample:** The target sample in the research is the purposive sample, as the researchers used the opinions of influential people in the General Tax Authority, who are the

International Journal of Studies in Business Management, Economics and Strategies Volume 3, Issue 4, April - 2024 ISSN (E): 2949-883X Scholarsdigest.org

directors, their assistants, heads of accounting departments, and employees with seniority, and the forms suitable for statistical analysis were (33) forms.

- F. Previous studies:
- (A study chukwudi et.at, 2018) entitled (Effect of artificial intelligence on the performance of accounting operations among accounting firms in south-eastern Nigeria)p impact of artificial intelligence on the performance of financial and accounting operations among accounting firms in south-eastern Nigeria. Nigeria, the study reached the conclusion that the application of artificial intelligence has a positive impact on the performance of financial and accounting functions, and the most important thing it recommended was the need to improve their knowledge of using artificial intelligence because of its great importance in enhancing accounting work and eliminating some costs.
- (A studyThapyom, 2015) entitled (Accounting information system excellence and goal achievement: evidence from information and communication technology businesses in Thailand): This study aimed to demonstrate the impact of discrimination in the accounting information system on achieving the goals of information and communication technology services companies in the state of Thailand, and the most important The study concluded that the accounting information system has a positive impact on information and communications technology resources
- **2.** Literature review: The concept of artificial intelligence and its role in improving the quality of the tax accounting system

2.1 Artificial Intelligence: Artificial intelligence is one of the most important elements of the technology industry In this era, F is a term consisting of two words (intelligence which means the ability to understand and Understanding new concepts And the artificial, which is associated with things resulting from certain elements, in contrast to natural things that appear as a result of human intervention (Al-Maliki, 202 3 : 96). Artificial intelligence is defined as "systems programmed to work, analyze, and conclude in a manner similar to the mind or human intelligence, and better through the applied aspect of computer science through intelligent programming that enables it to work in various tasks through the use of intelligence" (Dongre, Pandey and Gupta, 2020, p. 1858) Artificial intelligence is the ability of the computer system to follow its work and experiences and benefit from them, as well as to simulate human intelligence in making decisions (Kwarbat and Omojoye, 2021, p. 80). It is also known as an aspect of computer science that provides a wide range of techniques, methods and tools to create Models and problem solving via specific simulations. ( Ocana-Fernandez, Valenzuela-Fernandez, Garro-Aburto, 2019, p. 240 ) .The exchange of experiences, views and opinions between experts specialized in various fields, including artificial intelligence, leads to achieving an atmosphere of competition to build sophisticated and advanced systems that exceed the existing systems and programs. With their emergence, it has become possible to study the actions and behavior of individuals and build advanced systems similar to the behavior of individuals, which in some ways Sometimes its work exceeds human intelligence. (Al-Azzam, 2020: 478).

**2.2 Objectives of artificial intelligence**: Artificial intelligence is primarily based on the principle of induction And inference He is able to make decisions and solve problems even if some basic data is incorrect Whether it is complete or available, it aims to understand the **261** | P a g e

nature of human intelligence by using computer programs and systems that have the ability to simulate humans in making a decision . Or solve a specific issue . ) Al-Maliki , 202 3 : 96 (

**2.3 Characteristics of artificial intelligence:** Through the previous presentation, the characteristics of artificial intelligence can be determined as follows: (Al-Jaber, 2020: 19-20)

- A. It uses a method that is very similar to the method of human intelligence in dealing with complex situations and finding the appropriate solution to them. It can also process non-numeric data that is in the form of symbols. It is also characterized by the difficulty of preparation as it requires the representation of large amounts of different knowledge in various fields.
- B. It works to represent experiences to human intelligence and provide different alternatives for the system, enabling it to work without the need for experts. In addition, it does not feel the boredom, fatigue, or exhaustion that a person feels.
- C. Independence means its ability to work independently because it is able to perform complex operations such as driving a car or investing in investments without direct human intervention.
- D. Monitoring: Artificial intelligence is designed in a way that allows it to learn and change in an appropriate way. When mechanisms and software are exposed to a malfunction or a specific file or other is damaged, the response of artificial intelligence to it is significantly and superior compared to human intelligence.

**2.4 Types of artificial intelligence:** Scientists have classified artificial intelligence into three types : (Al-Maliki , 2023: 96 )

- A. limited artificial intelligence : It is the simplest type of artificial intelligence that is widely available, which performs one pre-programmed task that cannot be deviated from, mimicking the human mind .
- B. Strong or general artificial intelligence : Artificial intelligence in this type has developed to a stage that makes it equal to human intellect and functions It works based on learning from data, experiences, and expertise that make it capable of making autonomous decisions, independent of humans .
- C. Super artificial intelligence This type aims to design machines that exceed the human ability to learn and employ it in all areas of human intelligence. It is considered one of the most dangerous types of artificial intelligence that is still under experimentation.

**2.5 Tax accounting system:** performing tax accounting operations, tax authorities rely on central databases These processes involve many intermediaries, and higher costs And low efficiency and speed of performance, and are vulnerable to human error and high risks of illegal transactions (Fadil and Taha, 2023: 460). The tax accounting system is represented by the stages that end with the process of collecting the tax due from taxpayers (companies). Several definitions of this system have been provided, It has been defined as "the technical organization of the taxes due, as it determines the method according to which the taxable income is measured and the amount of tax due is linked, determined and collected based on the result of measuring the income. The tax accounting system is the core core of the work of the General Authority for Taxes (Tax Administration), and this works The system is in accordance with data, reports and tax returns through which the amount of tax due is arrived **262** P a g e

## International Journal of Studies in Business Management, Economics and Strategies

Volume 3, Issue 4, April - 2024 ISSN (E): 2949-883X Scholarsdigest.org

at after it is reviewed by the General Authority for Taxes (Tax Administration), and those charged with paying it ( shareholding companies). (Khalil, 2017 : 37), as it has been defined as "The process of examining and auditing the financial reports, tax declaration, and financial statements of the taxpaver (the company) accurately to determine the taxable income based on the legislation, laws, regulations, and instructions in force, calculating the tax due from the taxpayer, and achieving the tax objectives in an effective and efficient manner. (Al-Tarifi, 2018: 51), where the accountant tax under the current system By closing the accounts of the previous period at the beginning of each fiscal period, this process may take a long period for taxpayers, and this is what made the deadline for submitting a tax return Income begins on the first of January and ends at the end of March for natural persons and at the end of April for legal persons according to the Unified Tax Procedures Law No. (206) of 2020. Thanks to the digital nature of technology, it is possible to program tax accounting processes and add algorithms that implement Transactions are automated , and therefore there will be no need to delay tax calculations This is intended to make the system automatic , where transactions can be automated through smart contracts , which increases the efficiency and speed of the process further. (Fadel and Taha, 2023: 469-470)

**2.6 Components of the tax accounting system:** The tax accounting system consists of three basic components : (Ayesh, 20188: 7-8)□

- A. Legislative authority : It is the body concerned with imposing, abolishing, or amending the tax on taxpayers, whether they are natural or legal persons (companies), as the tax cannot be imposed, abolished, or amended except by law.
- B. administration : It is one of the most important parties in the tax accounting system, represented by the General Tax Authority, which is responsible for determining the taxable income and the amount of tax due based on the applicable laws, regulations and instructions, as well as collecting and depositing it with the treasury, and this is in accordance with what the tax laws have authorized it to do.
- C. Taxpayers: Several definitions of the taxpayer have been mentioned in sources and literature, but we return to the definition set by Income Tax Law No. (113) of 1982 and its amendments, paragraph eight, which states: "Every person is subject to tax under this law. The taxpayer is the person, whether natural or legal (companies)." A resident of Iraq or a non-resident who earns income subject to tax according to the law, and the taxpayer is responsible for paying the tax to the state.

#### 2.7 Uses of artificial intelligence in the tax accounting process

A. Tax inventory: The tax inventory process is considered one of the important matters in most countries, especially in developed countries in the field of taxes, due to its importance in achieving tax revenues, in addition to its major role in preventing cases of tax evasion, as it is carried out in most European countries that consider taxes as revenue. It is essential and important for the public national number system to record all transactions carried out by the taxpayer and inform the Tax Department of these transactions before the end of the fiscal year for accounting, as in Sweden and Norway. In the United States of America, the tax system includes strict tax laws in terms of penalties and penalties resulting from tax evasion. Egypt 263 | P a g e

is one of the Arab countries that followed the approach of developed countries in the field of taxes in the process of identifying taxpayers, as it adopted a set of administrative and legal procedures to work with the tax card system and criminalize non-employees in it in order to identify taxpayers and confront tax evasion. (Hussain et al., 2018: 7-8)

- B. Electronic tax examination: There were several definitions of electronic tax examination, where Salem defined it as "the study, analysis and examination of electronic accounting systems, reports and financial statements that were prepared using an electronic accounting system based on the rules approved by the tax law and in accordance with generally accepted and accepted accounting rules and principles." in general, and to ensure the accuracy of financial information and data. (Salem, 2015, 285) Tax examination is a set of procedures and methods based on legislation, laws and accounting rules to ensure the accuracy and validity of the information and financial data appearing in taxpayers' tax returns and thus determine the amount of income subject to tax. It is also defined as examining the accounts and transactions of taxpayers related to events that are subject to tax. By Tax Authority employees who are experts in this field With the aim of reducing the difference between the amount of taxes paid and the potential taxes that can be collected. (Fadel and Taha, 2023: 482) The importance of electronic tax examination lies in the optimal use of electronic programs that help in achieving speedy completion of tax examination operations and completing them with high efficiency, as well as helping in developing the methods used in the tax examination process. (Al-Harawy, 2018: 31-32) The electronic tax examination also aims to verify the accuracy and validity of the financial data recorded in electronic accounting systems, determine the extent to which this data can be adopted to determine taxable income, and verify that the financial data includes all activities that helped generate income and is free from errors, forgery and fraud, as well as knowing The extent of compliance with laws, regulations and instructions. (Al-Harawi, previous source, 33)
- C. Electronic payment system : The electronic payment system provides many advantages for developing the tax accounting system, which are: (Shaker, 2017, 172)
- Ease of dealing between taxpayers and the tax administration
- The tax assessor focuses on field examination and ensuring the accuracy of the financial data and information provided by the taxpayer instead of completing routine office work.
- It is possible to automate a number of processes, such as submitting a tax return, examining it, and paying the amount of tax due.
- Reducing the relationships that may be created between taxpayers and workers in the tax administration, such as appraisers responsible for examining taxpayers' financial statements, which may be biased in favor of the taxpayer or take a hostile position with him.
- The possibility of achieving fairness and consistency in dealing with taxpayers and applying tax rules to them.
- Providing information and answering inquiries received from taxpayers on an ongoing basis. The use of the electronic payment system also contributes to reducing the costs of collecting the tax, as well as providing speed and completing transactions in less time. Electronic payment systems are safe from theft or loss, and they also have the ability to pay internationally using the equivalent of the country's currency quickly and transparently via the Internet. It is not bound by state borders. (Shaker, previous source, 172)

264 | P a g e

#### 3. Statistical analysis and testing of research hypotheses:

#### **3.1 normal distribution and scale stability for the research variables:**

After the normal distribution was conducted for the variable (artificial intelligence) as an independent variable and (tax accounting system) As a dependent variable, The values of the coefficient of flatness and skewness shown in Table (1) are all within the acceptable limits of the normal distribution, which ranges between ( $\pm 1.96$ ), and this indicates that the data of the current research related to the independent variable ( artificial intelligence ), The dependent variable ( tax accounting system ) is suitable for conducting statistical tests. To determine the validity of the questionnaire for the current research, its suitability, and its

measurement of the research variables Currently, the research used the Cronbach's alpha coefficient, as shown in Table (5), as the results showed a fairly high reliability for the items of the study scale for the artificial intelligence variable, and it did not change the tax accounting system, as their results ranged between (0.79). -0.82), and in comparison with what is known, the value of the Cron-Nbach alpha coefficient must be greater than (0.70).

Alpha Crew	Normal distribution		N	Coding	Variables and	
Nabach	Kurtosis	Skewness			dimensions	
	-0.402-	-0.805-	30	Al 1		
	0.623	-1.216-	30	2AI		
	0.556	-1.320-	30	3AI		
	-1.784-	-0.583-	30	4AI		
	0.176	-1.042-	30	A 15	artificial	
0.79	0.036	-1.428-	30	6AI	intelligence	
	0.211	-0.810-	30	Al7	AI	
	-1.050-	-0.430-	30	8AI		
	0589-	-0.586-	30	Al9		
	1.213	-1.910-	30	Al10		
	-1.094-	-0.745-	30	Al11		
	1.950	-1.621-	30	TA1		
	0.740	-1.890-	30	TA2		
	0.650	-1.093-	30	TA3		
0.82	0.641	-1.200-	30	TA4	Тах	
	0.934	-1.867-	30	TA5	accounting system	
	1.201	-1.407-	30	TA6	T.A	
	0480-	-0.413-	30	TA7		
	0.629	-0.432-	30	TA8		
	1.517	-1.217-	30	TA9		

Table (1) Normal distribution and scale stability for the research variables

Source: Prepared by researchers based on the outputs of the SPSS v.27 program

## **3.2 Description of the sample of respondents:**

It appears from Table No. (2) that the respondents to the study have the following characteristics, which can help in providing accurate and good information that contributes to achieving the objectives of the current study, as follows:

- A. Job title : It is noted from the description of the sample of respondents according to (job title) that the study sample focused on appraisers , university professors in the first place , and also those in charge , due to the high experience they possess and which enables them to answer the questionnaire with ease.
- B. Specialization : The results from describing the sample of respondents according to specialization showed that the percentage was for accounting specializations Financial and banking sciences This indicates the universe The majority of the study sample are specialists, which leads to high accuracy in the answers .
- C. Education level : The results of the description of the sample of respondents (education level) showed that the largest number of respondents to the study were holders of bachelor's degrees and holders of master's and doctoral degrees . This confirms the results that the study sample was able to form a sufficient understanding of the questionnaire paragraphs because most of the respondents are from Holders of university degrees.
- D. Years of experience : The results of describing the sample of respondents according to (years of experience ) were distributed as follows: (6-10) years, then (11-20) years , and after that (21-and more). This confirms the increase in their insight and awareness of the reality in which they work as a result. Accumulated experience in tax work .

percentage %	Repetit ion	Category	variabl e	percentag %e	Repet ition	Category	variab le
16.67	5	Ph.D		26.67	8	University Professor	
				1 6.67	5	Auditor	
23.33	7	Master's	evel	30	9	Tax assessor	Title
46.67	14	Bachelor' s	ducation I	20	6	Charged	Career
13.33	4	diploma	ec	6.67	2	Other	
100	30	30 the total	total	100	30	the total	
100	30				43.33	13	accounting
20	6	5-1		6.67	2	business management	
30	9	10-6	ience	16.67	5	Economy	ation
26.67	8	20-11	of Exper	20	6	Finance and Banking	Specializa
23.33	7	and -21 more	Years	13.33	4	Other	
100	30	the total		100	30	the total	

 Table (2) Description of the sample of respondents

**Source: Prepared by researchers based on the questionnaire form 266** | P a g e

#### **3.3 Descriptive analysis of the research variables**

#### 3.3.1 Descriptive analysis of the independent variable (artificial intelligence):

The results of Table (3) show the level of artificial intelligence in the banks in the research sample current from the point of view of the respondents, since the general mean for this variable is (4.481), and the general standard deviation was (0.598), and this indicator shows the presence of consistency and homogeneity in the answers from the point of view of the research sample, and since this was the general mean Higher than the hypothesized average of (3), this indicates that this variable is considered available according to the views of the respondents, and it is also an indication that their opinions give the variable artificial intelligence a fair amount of attention, which is of course a positive reflection to an extent. Based on their answers, the highest average between the items is (4.767), which was for paragraph (6 AI), which states (It helps to study the behavior of individuals), and the lowest average between the items is (3), which was for Paragraph (2 AI), which states: "He works to pursue his work and experiences and benefit from them ."

Ranking	Relative %importance	standard deviation	Arithmetic mean	Variables
Seventh	88.67	0.691	4.433	AI 1
the last	84.20	0.665	4.210	2AI
Fifth	91.33	0.679	4.567	AI 3
the third	92.67	0.560	4.633	4AI
the second	93.00	0.563	4.650	AI 5
the first	95.33	0.568	4.767	6AI
The tenth	84.80	0.556	4.240	AI 7
the fourth	92.00	0.498	4.600	8AI
VIII	87.33	0.669	4.367	AI9
VI	90.00	0.861	4.500	AI10
Ninth	86.42	0.490	4.321	AI11
		0.598	4.481	AI

Table (3) Descriptive analysis of the independent variable (artificial intelligence)

Source: Prepared by researchers based on the outputs of theSPSS v.27 program

#### **3.3. 2 Descriptive analysis of the dependent variable( tax accounting system)**

The results of Table (4) show the level of the tax accounting system in the banks in the research sample from the point of view of the respondents, as the general mean for this variable is (4.503), and the general standard deviation was (0.697), and this indicator shows

## International Journal of Studies in Business Management, Economics and Strategies Volume 3, Issue 4, April - 2024 ISSN (E): 2949-883X

Scholarsdigest.org

the presence of consistency in the answers and homogeneity. And since the general average was higher than the hypothesized average (3), this means that this variable is considered available according to the views of the research respondents , and it is also an indication that their opinions give the variable of the tax accounting system a fair amount of attention, which is of course a somewhat positive reflection of their answers, and more The average between the paragraphs is (4.733), which was the share of paragraph (TA5), which states (The General Tax Authority is considered the operator of the tax accounting system), and the lowest average between the paragraphs is (4.120), which was the share of paragraph (TA3). Which states: "The tax accounting system is considered the basis for tax collection."

Ranking	Relative %importance	standard deviation	Arithmetic mean	Variables
the second	94.20	0.572	4.710	TA1
VIII	84.40	0.456	4.220	TA2
the last	82.40	0.535	4.120	TA3
VI	88.90	0.584	4.445	TA4
the first	94.67	0.521	4.733	TA5
the fourth	93.33	0.547	4.667	TA6
the third	94.00	0.498	4.700	TA7
Seventh	86.00	0.505	4.300	TA8
Fifth	92.67	0.765	4.633	TA9
		0.679	4.503	T.A

Table (4) Descriptive analysis of the dependent variable (tax accounting system)

Source: Prepared by researchers based on the outputs of the SPSS v.27 program

#### **3.4 Testing hypotheses**

#### 3.4.1 Testing the association hypothesis:

The correlation hypothesis was tested , which states, "There is a significant correlation between artificial intelligence and the tax accounting system." The correlation results showed that there is a significant correlation, as the correlation coefficient (R) appeared. With a value of (42.7%), as for the significance (p) Its value was (0.019), which is less than the tabular value (0.05), and therefore the hypothesis is accepted.

268 | P a g e

Dependent variable	) samplen (	) Moralp (	Correlation coefficient	Independent variable		
T.A	50	19 0.0	.427 *0	AI		
When significant (5%)* When significant (1%)**						

Table (5): Results of the correlation hypothesis test

Source: Prepared by the researcher based on the outputs of the SPSS v.27 program

### **3.4.1** Testing the impact hypothesis:

It is "There is a significant impact relationship between artificial intelligence and the tax accounting system." It is clear from the results of testing the impact hypothesis, which are shown in table (6) that there is a significant impact between artificial intelligence and the tax accounting system, as the value of (f) drawn is (6.145). It is higher than the tabulated value (4.17), and the value of (t) was also recorded. Its value is (2.479), which is higher than the tabular one, which is (2.042), and the coefficient ( $\beta$ ) is (0.425), which means that a one-time increase in artificial intelligence leads to an increase of (0.425) in the tax accounting system, and it can The regression equation is formulated as follows

## $y = a + \beta x 1$ .....(1)

And by monitoring the value of the interpretation factor (R2) It appeared that the model has an explanatory power of (0.18), and this indicates that artificial intelligence explains (18%) of the variance that occurs in the dependent variable, which is the tax accounting system, and thus the impact hypothesis is accepted.

Dependent variable	R2	F	Т	β	А	Independent variable	
ТХ	0.18	6.145	2.479	0.425	0.7 52	AI	
The tabular (f) value is 4.17 with a significance level of (0.5%) The tabular( t) value is 2.042 with a significance level of (0.5%)							

Table (6): Results of testing the impact hypothesis

Source: Prepared by researchers based on the outputs of the SPSS v.27 program

## 3.4.2 Testing the impact hypothesis:

It is "There is a significant impact relationship between artificial intelligence and the tax accounting system." It is clear from the results of testing the impact hypothesis, which are shown in table () that there is a significant impact between artificial intelligence and the tax accounting system, as the value of (f) drawn is (6.145). It is higher than the tabulated value **269** | P a g e

## International Journal of Studies in Business Management, Economics and Strategies Volume 3, Issue 4, April - 2024 ISSN (E): 2949-883X

Scholarsdigest.org

(4.17), and the value of (t) was also recorded. Its value is (2.479), which is higher than the tabular one, which is (2.042), and the coefficient ( $\beta$ ) is (0.425), which means that a one-time increase in artificial intelligence leads to an increase of (0.425) in the tax accounting system, and it can The regression equation is formulated as follows

 $y = a + \beta x 1 \dots (1)$ 

Tax accounting system = 0.752 + 0.425 Artificial intelligence ...... .(2)

And by monitoring the value of the interpretation factor (R2) It appeared that the model has an explanatory power of (0.18), and this indicates that artificial intelligence explains (18%) of the variance that occurs in the dependent variable, which is the tax accounting system, and thus the impact hypothesis is accepted.

Dependent variable	R2	F	Т	β	А	Independent variable	
TX	0.18	6.145	2.479	0.425	0.7 52	AI	
The tabular (f) value is 4.17 with a significance level of (0.5%) The tabular( t )value is 2.042 with a significance level of (0.5%)							

 Table (6): Results of testing the impact hypothesis

Source: Prepared by researchers based on the outputs of the SPSS v.27 program

## 4. Conclusions and recommendations:

## 4.1 Conclusions:

The following conclusions were reached:

- Artificial intelligence is considered one of the most important elements of the technology industry at the present time, as it means the ability to understand and perceive new concepts.
- The exchange of experiences, views and opinions between experts specialized in various fields, including artificial intelligence, leads to achieving an atmosphere of competition to build sophisticated and advanced systems.
- Artificial intelligence works to understand and assimilate human intelligence by using programs and computer systems that have the ability to simulate humans in making a decision or solving a specific issue.
- The optimal use of electronic programs that help in achieving speedy completion of tax examination operations and completing them with high efficiency, as well as helping in developing the methods used in the tax examination process.
- The use of electronic payment processes contributes to reducing the costs of tax collection.
- Electronic payment processes are systems that are safe from theft or loss. They also have the ability to pay internationally quickly and transparently via the Internet and are not bound by country borders.

**4.2 Recommendations**: Through the previous presentation, the researchers recommend the following recommendations:

- It is necessary to work on introducing modern technology into the tax accounting process because of its great importance and to keep pace with the development taking place in the field of technology in economic activities.
- It is necessary to train employees of the General Tax Authority to employ artificial intelligence in the tax accounting process and provide the best services to taxpayers through development courses by specialists in the field of artificial intelligence.
- Working on designing systems for the tax accounting process that mimic human intelligence to achieve accuracy in work and address problems that may occur .
- Developing the methods used in the tax audit and examination process by designing electronic programs characterized by high accuracy to audit taxpayers' financial data and information and ensure their accuracy.
- To reduce tax collection costs and speed up its collection, it is necessary to rely on the electronic payment process because it saves time and effort.
- The necessity of developing the payment process for the tax due from taxpayers electronically through electronic financial transfers and not obliging taxpayers to pay directly to the General Authority for Taxes and the delay it causes in completing the work.

## References

- Dongre , N., Pandey, A., & Gupta, O. P. (2020). Artificial Intelligence In Accounting: Opportunities & Challenges. Journal of Xi'an University of Architecture & Technology, XII (V), p. 1858.
- 2. KWARBAI, J., & OMOJOYE, E. (2021). ARTIFICIAL INTELLIGENCE AND ACCOUNTING PROFESSION. BABCOCK JOURNAL OF ACCOUNTING AND FINANCE, 1 (1), p. 80.
- 3. Ocana -Fernandez, Y., Valenzuela-Fernandez, Garro-Aburto , L. (2019). Artificial Intelligence and its Implications in Higher Education. Propositos y Representaciones , 7(2), 536-568
- 4. Al-Azzam, Noura Muhammad Abdullah, (2020), "The role of artificial intelligence in raising the efficiency of administrative systems for human resources management at the University of Tabuk," Educational Journal, College of Education, Sohag University
- 5. Al-Jaber, Ghadeer Muhammad Odeh, (2020), "The impact of artificial intelligence on the efficiency of accounting systems in Jordanian banks," Master's thesis, Middle East University.
- 6. Khalil, Abdul Rahman Adel, (2017), "The impact of internal audit characteristics in achieving tax accounting efficiency", Khartoum, Al-Nilein University, College of Commerce, Postgraduate Studies Journal, Volume 10, Issue 1.
- 7. Al-Tarifi, Ghofran Khalafallah, (2018), "The role of creative accounting in tax accounting decisions / a field study on the Tax Office," Master's thesis, Al-Nilein University, College of Graduate Studies.
- 8. Ayesh, Orouba Moin, (2018), "Administrative and financial corruption and its negative effects on the volume of tax revenues in Iraq and ways to address it," the Fourth Specialized Scientific Conference of the Administrative Technical College, Baghdad.

- 9. Salem, Taher Ali, (2015) "An analytical study of the related aspects related to electronic tax examination," Scientific Journal of Commercial and Environmental Studies, Egypt, Volume 6, Issue 1.
- 10. Al-Harwi, Kamal Abu Bakr Abdul Qadir, (2018), "The effectiveness of implementing the electronic tax examination system, a field study in Yemeni tax administration," Master's thesis in accounting, Al-Andalus University of Science and Technology, Yemen.
- 11. Shaker, Ali Ghanem, (2017), "The role of the electronic tax payment system in developing tax accounting procedures, an analytical study in the General Authority for Taxes, Diwaniyah Branch," Al-Muthanna Journal of Administrative and Economic Sciences, Volume Seven, Issue Four.
- 12. Hussein et al., Enas Muhammad Ali, Mahmoud Ismail Muhammad, (2018), "The effective role of computer information systems in the tax inventory process," research for the first international conference of 2018, Journal of Accounting and Financial Studies, University of Baghdad, Iraq.
- 13. Ahmed Mohamed Ibrahim Fadel, Dr. Muhammad Haris Muhammad Taha, "The role of blockchain technology in the digitization of tax accounting and its implications for tax compliance a field study," Scientific Journal of Business Research, Issue 4, Part 2, 2023.
- 14. Wafa Fawaz Al-Maliki, "The Role of Artificial Intelligence Applications in Enhancing Educational Strategies in Higher Education (Literature Review)," Arab Journal of Science and Research Publishing, Issue 7, Issue 5, 2023.