The Impact of Artificial Intelligence Applications on the Performance of the External Audit Profession

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The research seeks to explain the impact of artificial intelligence applications on developing the performance of its profession in the field of external auditing and its employment by workers and residents in that profession because of its advantages and characteristics, which encouraged many in various fields of science to benefit from them and develop those areas and achieve the goals that it seeks This research shows that the impact on three main axes of the work of the external auditing profession, which is an important part of the nature and quality of performance, which is to support the opinion of the external auditor, the practice of required professional care and set a gap in expectations, and then develop paperwork for the profession of external auditing.

Key words: *Artificial Intelligence, External Auditing*

The first topic: **Research methodology and previous studies**

First :Research methodology

Introduction

All professions that seek to improve themselves to keep abreast of different life developments to meet the needs of the market and the needs of their beneficiaries, especially with the logical development and registration in various areas of life and the introduction of advanced applications time, effort and cost in the DONC advertising business, in addition to carrying out high-precision business and decision-making away from bias Effects and pressures, and these applications were called artificial intelligence applications that compete with professionals in order to employ them in different sciences and professions to benefit from its advantages, and the profession and review are among those professions that these applications should contribute to developing and enhancing their role in society and the market and increasing confidence in this role through Employing the artificial advantages of intelligence applications in the fields of auditing and making various decisions, enhancing an important role for the auditing

profession, achieving its goals, and meeting the expectations of the beneficiaries of the role it should play in influencing the decisions of the beneficiaries.

Research problem

Many parties rely on the report of the external auditor to make various important decisions, which requires raising the quality of the audit process to advance the reality of the audit profession, which requires external auditors to find modern and advanced ways to raise the quality of their performance. These methods are applications of artificial intelligence, and the research problem can be formulated with the following question:

Does the use of AI applications by external auditors contribute to the development of the profession of external auditing?

Research objective

The research seeks to show the following

1. And to clarify the concept of a fake applications of artificial intelligence.
2. Clarify the most important areas for the use of artificial intelligence applications in external auditing.
3. Explain the impact of the use of artificial intelligence applications on the development and quality of external audit.

Importance of research

The importance of research by keeping abreast of developments and changes that occur in the different business environment, including the work of the profession of the external audit environment, which must raise its methods, means and management to cope with the different changes and different interface. As well as keeping pace with the development of methods of deception and misinformation in the financial statements and narrowing the expectations gap through the introduction of means and applications of artificial intelligence that have important advantages and employment in the areas of external audit.

Research hypothesis

The research is based on the following main hypothesis: (There is a statistically significant relationship between the use of artificial intelligence applications and the performance of the external audit profession). From this main hypothesis, the following sub-hypotheses appear:

1. There are significant relationship statistically between artificial intelligence applications and the opinion of the external auditor.

2. There is a statistically significant relationship between applications of artificial intelligence and due diligence.
3. There is a statistically significant relationship between the applications of artificial intelligence and the application of the expectations gap,

Search limits

1. Limits TEMPORAL :The start searching and testing R results in.2020
2. Search limits landfill the vessels :have been doing research in the work environment, the external audit profession in Iraq.

Research Society and Sample

1. Research community :The research community consists of workers in the profession of external auditing in Iraq.
2. Research Sample :The research consists of a number of workers in the profession of external auditing in Iraq.

Research method

You will use the inductive approach of the researcher by extrapolating and analyzing books, studies and research related to the subject of the research, and designing a questionnaire to determine the impact of artificial intelligence applications on the performance of the external occupational profession, taking into account the wear and tear. Clarity in presenting questionnaire questions that aim to achieve the research objectives.

Statistical methods used in the research

Statistical methods were used within the Statistical Package for Social Sciences (SPSS) in data analysis, whereby the researcher used arithmetic averages, standard deviation and simple linear regression to ensure the escape of health and research Z.

Second :Previous studies

The most important results of the study	Objectives of the study	studying	T
Studies have concluded that artificial intelligence is more stable than natural intelligence and the ease of transferring and distributing artificial intelligence while the information	The aim of the study was to find out the potential value of artificial intelligence by comparing it with natural intelligence	a study (Alian Bonnet , 1984) Entitled : (Artificial Intelligence)	1

process requires a system and a long time in natural intelligence , as well as low cost in artificial intelligence			
The study found that the artificial intelligence applications enjoy the flexibility and represent me for Almaloma t mathematically and can formulate models of them in determining the relationship between the information and the required results accessible	The studies aimed to identify the effect of excluding artificial intelligence applications in electrical engineering	A study (Abdel Majeed , Mazen200 , (9entitled: (The use of artificial intelligence in electrical engineering applications comparat ive study)	2
The study concluded that there is an impact of the use of artificial intelligence in achieving professional care ,assessing risk management and planning the audit	The studies aimed to identify the possibility of using artificial intelligence techniques in controlling the quality of internal audit	Study (Othman , Jam il(2012 , Entitled : (The possibility of using artificial intelligence techniques to control the quality of internal audit)	3
The study found the need to adopt the methods and techniques marginal Th Ktqanyat Artificial Intelligence in the uncle Maly audit to detect misleading practices in the financial statements to increase the accuracy of the results that can be reached by the external auditor in his work	The study aimed to use artificial neural networks, which is one of the applications of artificial intelligence in developing the role of the external auditor to uncover related financial statements and improve its performance in judging them.	Study (Arsenius , (2012 Baan Wan (: An experimental study of the use of artificial neural networks to develop the role of an auditor in the report on misleading financial statements	4

The second topic

The concept of artificial intelligence and the most important areas of use in external auditing

First :the concept of artificial intelligence and its most important applications:

Artificial intelligence applications are defined as smart applications that rely on the use of a number of equipment, machines and programs that simulate the way in which they work and correct the human mind to reach optimal solutions and increase the degree of accuracy and prediction of changes in the scientific method ((Ramish & Rampel, 2002: 46, a way of thinking

about How to solve a computer that solves various problems, and through any specialized programming language can be applied to elk in artificial intelligence (Al-Hussaini, 2002: 273), and when the applications of artificial intelligence are used, millions of data are stored inside the main database in the computer and then develop a program A special first to deal with this data and the great use in solving problems necessary for decision-making through the frameworks of the information code stored within the Gs of a person through learning and experience gained (Master, (83: 2004), the researcher believes that official intelligence rtif is a simulation of a person in terms of mental thinking Store, analyze and make different decisions through learning, training and gaining experience.

Among the most important applications of artificial intelligence:

1. Artificial neural networks.
2. Expert systems
3. Algorithms gene yen.
4. Fuzzy logic.

And AI applications have a set of characteristics which are (Abdel Nour)266 :2005 ,

1. The similarity of the style with the human method in solving problems.
2. Accuracy and speed.
3. Having solutions to all problems.
4. Non-volatility.
5. Non-digital data processing.
6. Store human experience.
7. Not feeling tired or bored that can happen to a person.
8. Reduced reliance on experts.

Second :The effect of artificial intelligence applications on the performance of external auditing:

1- The impact of AI applications on supporting the external auditor's opinion:

A representative representing the external auditor's opinion as the final result of the beginning of the business audit until preparing his final report on the audit process, the opinion of the external auditor may be requested by the beneficiaries of this view with the difficulty of assessing the quality of growing computer information J provided to him (SPI, 1988: 162163), and that the use of intelligence applications Artificial improves the ability of the external auditor to predict fraud detection and detection better than traditional methods and means in practical review (Arsanius, 2012: 120), and there are a number of advantages that can be

achieved through the use of artificial intelligence applications to support the opinion of the external auditor (Al-Saqa, Rashid) 2012: 11-12):

Raising the efficiency of the external auditor and assisting him in making decisions.

1. Assist the external auditor in developing the audit program and plan.
2. Provide audit results in a timely manner.
3. Reduce costs.
4. Reducing errors.
5. Objectivity in issuing judgment and avoiding personal estimates.
6. Formulate an opinion in the manner stated in the human report.

The advantages of AI applications can improve the performance of the review process and the opinion on which multiple parties will make different decisions in light of this view...

2- The effect of artificial intelligence applications on achieving professional care:

Professional care is considered one of the required pillars in performing any professional process, especially in the profession of external auditing, it represents the verse of the professional process, especially in the profession of external auditing, it represents the minimum that the external auditor is required to do from work and care. The concept of professional care is required, but it imposes a level of performance responsibility that must be achieved by all concerned with achieving the standards of field work and preparing the report. Likewise, the concept of professional care admits that the auditor is the second person to be mistaken in evaluation and judgment, and this type of error can occur. In all other professions (Thomas, Hanky, 1989: 57), the external auditor faces a set of procedures surrounding the process of assuming the required professional care and can be summarized as follows:

1. Fees and costs of the audit process.
2. Compression time required for the audit.
3. Internal trading.

Another important determinant that can be added to the mentioned volumes is the researcher's belief that weak knowledge and expertise in technological methods, including methods and applications of artificial intelligence, and other smart methods, relying only on traditional methods and means of review, which may not give good results due to the complexity And the development of methods of analysis and surprise in the financial statements, which may give a judgment addressed to me by the external auditor, and also to be exposed to legal responsibility or the customer or a third party, and applications of artificial intelligence can contribute to achieving the required professional care and thus improve the performance of the external audit process through the following:

1. AI applications assist external auditors with predictions of fraud and fraud.
2. Improving the efficiency of the external audit process by sending references to the external auditor at a time when he did not believe that it was necessary to conduct additional tests in the financial statements that contain misleading information(Kambia & Kapandia, 2010: 66.)
3. Effective use of data processing , as methods that combine human and machine rule affect (Murin, 2010: 66) Sprague
4. Good planning for the audit process and to identify the type of problem and the development of procedures for the t accurate costs suitable pric Pliniussen,(Johnek, 1995: 53.)
5 help understanding and reasoning in a scientific way and the mentality of sound pumice ,defect   .(76- 73 :2009)

3 -The effect of AI applications on the expectations gap:

The expectations gap is defined as the difference between the levels of performance of the external auditor, as the auditor envisions on the one hand, and as the beneficiaries believe or believe in the opinion of the external auditor on the other ((Leggio 1974: 27-44), defined by the difference between the expected beneficiaries of the external auditing profession and what The profession can appreciate Meh Jennhng & Reckers, 1993: 489-507), and some have identified it as the difference between the beneficiaries' perceptions of the role of the external audit and an auditor's understanding of that role (GuySilivan, 1988: 36-44) .The researcher believes that the expectations gap arises as a result The difference between the expectations of the beneficiaries of the external review process in the light of the duties and tasks that the external auditor should perform and what it can provide to those who benefit from the external audit process.

1. It helps in developing the industrial specialty of the external auditor (Garcello & Albert, 2004: 651-670).

2. Artificial intelligence applications contain any changes that may arise in the work environment because of their flexibility and adaptability.
3. Ease of interaction with advanced information technologies , and providing accurate information Saad and others(98 :2013 ,)

4. Avoiding prejudice ,personal judgment, and pressures that arise in the audit process for long periods of time and contribute to raising the efficiency of the external audit process.

The third topic

Field studies

This includes the m research study of a field survey to find out the views of a sample of external auditors about the impact of artificial intelligence applications on the performance of the external audit profession through three main themes related to the audit process namely:

1. The professional external auditor opinion.
2. Professional attention required by the external auditor.
3. Narrowing the expectations gap.

First: The research sample: The research sample is from a group of (56) auditors, then the questionnaire is distributed to them, then repeat (50) valid questionnaire and the following demographic information for the research sample. :

1-   Academic detail

Higher Diploma	M.A.	Ph.D.
5	25	20

2-   Years of Experience

10and more	On10-5	Less than 5 years
10	18	22

3-   Age:

More than 40 years old	30years 40 - years	Less than30
24	17	9

Second :The practical framework

1 -Descriptive statistics of the research variables: This paragraph aims to display the results of the search variables based on some statistical methods and tools such as the standard deviation and the variance rate for each variable to know the dispersion of answers, in addition to the mean of the variables to determine the level of the answer as follows:

Summary results for the descriptive statistics of the independent variable (artificial intelligence) and the dependent variable (performance of the external audit profession)

Table (1) shows the mean and standard deviation (Std coefficient) (CV) of the search variables.

Table (1) Summary of descriptive statistics of the dependent and independent variable

CV	SD	Mean	Variables and sub-dimensions
26.38	.86	3.27	Artificial intelligence
22.29	72	3.26	The opinion of the external auditor
25.92	64	3.23	Due diligence
25.13	71	3.24	Narrowing the expectations gap

It is clear from the results of Table No. (1) regarding the descriptive statistics of the independent variable and the dependent variable and its sub-dimensions, that there is harmony in the responses of the respondents, and this is clear from the mathematical circles that ranged. Between (3.23 - 3.27), the standard deviations that ranged between (0.71 - 0.86), and the coefficient of variation between (22.29 - 26.38). The mean of the independent variable (3.27) indicates the positive and important acceptance of respondents towards the independent variable, which is higher than the value of the default mean (3), and this reflects the actual reality in the company that was searched, and indicates the value of the standard deviation (0.86) and the coefficient of moral differences (26.38) On the lack of dispersion of the responses of the respondents from the arithmetic mean, and the presence of harmony between answers, understanding and awareness of the paragraphs, the general mean of the dependent variable (3.26) indicates positive acceptance and importance of respondents, which is higher than the value of the default average of (3), and this reflects the actual reality In the company in question, it indicates the value of the general standard deviation (0.72) and the extreme general difference factor (22.29) on the lack of dispersion of respondents' answers to the mean, the presence of harmony between answers, understanding and awareness of the paragraphs.

2. Hypotheses testing

Table (2) shows the results of the correlation between research variables, and shows a statistically significant correlation with artificial intelligence applications with the performance of the external audit profession, and this result indicates that the use of artificial intelligence applications is one of the main pillars that the research company should adopt to enhance the performance of the auditing profession External.

Table (2) results of correlations

The dependent variable and its sub-dimensions				variable The Independent
Narrowing the expectations gap	Due diligence	The opinion of the external auditor	Performing the profession of external auditing	
.486 **	.472 **	.440 **	.446 **	Artificial intelligence applications
.000	.000	.000	.000	Level of significance

The results of the correlations showed that all the research hypotheses are accepted, as shown in Table No.(3) .

Table (3) results Test Hypotheses Based to me Relations The link

Result of the hypothesis	Hypothesis	Type of hypothesis
Accept	There is a statistically significant correlation between the use of AI applications and the performance of the external audit profession	Chairwoman
Accept	There is a statistically significant correlation between the applications of artificial intelligence and the opinion of the external auditor	Secondary
Accept	There is a statistically significant correlation between the applications of artificial intelligence and due professional care	Secondary
Accept	There is a statistically significant correlation between the applications of artificial intelligence and narrowing the expectations gap	Secondary

Conclusions and recommendations

First - :Conclusions

1. The profession of external auditing needs to develop its means to keep pace with the development of fraud and the difficulty of discovering it.

2. Artificial Intelligence applications contribute to the development of the performance of the external auditors because they contain many advantages that can be taken advantage of.

3. The AI applications provide additional means to support the professional care of the external auditor.

4. Artificial Intelligence applications help narrow the expectations gap between the external auditor and other beneficiaries.

5. The applications of artificial intelligence in developing the profession of external auditing are reflected in the decisions of other beneficiaries.

Second :Recommendations

1. Using different AI applications in the profession of external auditing.

2. Consider the use of artificial intelligence applications in the profession of external auditing as a component of quality in that profession.

3. All employees in the profession of external auditing have attended many training courses on the uses of artificial intelligence.

4. The introduction of applications of artificial intelligence in the curricula of accounting and flour students.

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