

The Effectiveness of the Use of Artificial Intelligence in the Internal Audit Process and its Impact on Risk Management, Control and Governance in the Palestinian Government Sector

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ABSTRACT

The study aimed to identify the effectiveness of the use of artificial intelligence in the internal audit process and its impact on the management and evaluation of risks, control and governance in the Palestinian government sector, and to answer the research questions and test the hypotheses of the study, the researchers relied on the descriptive analytical method, and distributed a questionnaire to the study community consisting of department managers and heads of departments and internal auditors working in the internal audit departments of the Palestinian government ministries and the number of (40) auditors, and the use of statistical analysis program(SPSS) to enter and analyze data.

The results of the study also showed that there is a significant impact on the use of artificial intelligence in the internal audit process on the management and evaluation of risks and regulatory systems, strengthening governance procedures and mechanisms, improving the efficiency and effectiveness of the audit process, increasing the quality of internal audit services and reducing risk in Palestinian government ministries.

The study also recommended the need to direct Palestinian government ministries to adopt the use of Artificial Intelligence applications in the internal audit process, because it provides a reduction in time and cost and increase the efficiency of performing internal audit tasks in light of the huge amount of data and complex reports and then help him reach rational decisions, and should enhance the awareness of internal auditors of the importance of the use of Artificial Intelligence technologies, its role in achieving the quality of the audit, conducting the risk assessment process, examining internal control systems, and strengthening the governance system in Palestinian government ministries.

Key words: Artificial Intelligence, Internal Audit, Risk, Internal Oversight, Governance.

1. Introduction

Artificial intelligence is one of the main pillars of the technology industry in the current era, and is known for the ability of digital machines and computers to perform tasks that mimic those performed by intelligent objects, such as the ability to think or learn from past experiences or other processes that require mental processes, and has become the focus of business communities and economic institutions and the opportunities it creates.

Current trends suggest that AI will have the greatest impact on the global economy, according to a report by the McKinsey Global Research Institute;

AI is seen as a supportive strategy for the completion of audit procedures through technology to achieve the quality of the internal audit process, and the audit ing profession is one of the professions affected by modern technology, and has undergone many changes, with the emergence of AI technologies, the term "automation of automated processes" emerged as a new audit ing technique recently, some organizations have collaborated with AI providers to use these systems in the audit process, and frequent manual audit ing tasks such



as risk management and internal control testing can be automated. The auditing process helps with the use of AI technologies, improving the efficiency and effectiveness of internal audit, and completing internal audit tasks at the lowest time and at a lower cost, which contributes to improving the quality of audit services, supporting audit strategy and reducing audit risk (Al-Samarrai & Al-Sharda, 2020).

The auditing profession may now face many challenges, including how to deal with AI technologies that impose a new reality in the audit environment. Auditors must develop their own skills and expertise, through which they can possess scientific knowledge and professional experience to develop positive aspects of AI applications, innovative methods that support their efforts to support auditing, strengthen governance procedures, manage and evaluate risks, and examine and evaluate the internal control system.

2. Study problem

The use of AI technology has affected the performance of the audit process, which has led to the emergence of professional auditing standards that guide and guide how to deal with this technology when conducting internal audit, as the audit process using AI technology can help improve the efficiency and effectiveness of the internal audit process, which will contribute to the management and evaluation of risks, the examination and evaluation of the internal control system, and the strengthening of governance procedures in the Palestinian government sector. Accordingly, the study's questions can be formulated as follows:

The main question:

What is the impact of the use of artificial intelligence on the internal audit process and its impact on risk management, control and governance in the Palestinian government sector?

The main question is branched out by the following sub-questions:

1. What is the impact of the use of artificial intelligence in the internal audit process on risk management and evaluation in the Palestinian government sector?
2. What is the impact of the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector?
3. What is the impact of the use of artificial intelligence in the internal audit process on strengthening governance procedures in the Palestinian government sector?

3. The objectives of the study:

The main objective of this study is to find out the effectiveness of the use of artificial intelligence in the internal audit process and its impact on risk management, control and governance in the Palestinian government sector, which has been identified through the following sub-objectives:

1. To show the impact of the use of artificial intelligence in the internal audit process on the management and evaluation of risks in the Palestinian government sector.
2. To show the impact of the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector.
3. To show the impact of the use of artificial intelligence in the internal audit process on strengthening governance procedures in the Palestinian government sector.

4. The importance of study:

The importance of this study lies in the fact that it deals with one of the most recent topics that dealt with the link between several vital topics, namely the effectiveness of the use of artificial intelligence in the internal audit process and its impact on the management and evaluation of risks, the examination and evaluation of the internal control system, and the strengthening of governance procedures in the government sector in the institutions of the Palestinian National Authority, which constitutes a new scientific addition in the field of audit science.

1. This study contributes to the need to keep up with modern technological developments, especially in the process of internal auditing and internal control systems and governance, and training internal auditors on it by raising their professional competence, considering the process of using artificial intelligence techniques in the audit process of the basic requirements to control the quality of the audit process.
2. The importance of this study is highlighted in that it examines the effectiveness of the use of Artificial Intelligence in the internal audit process, the impact on the management and evaluation of risks, the examination and evaluation of the internal control system, and the strengthening of governance procedures through the use of digital auditing in the performance of audit services to provide high quality services more than others, because internal audit is an important sector that contributes to the confidence of financial statements.

5. Study hypotheses:

In order to achieve the objectives of the study and answer its questions, the following hypotheses have been formulated:

- **The main hypothesis:** What is the impact of the use of artificial intelligence in the internal audit process and its impact on risk management, control and governance in the Palestinian government sector.

The main hypothesis is branched by the following sub hypotheses:

- **The first sub-hypothesis:** there is an impact on the management and evaluation of risks in the Palestinian government sector.

- **The second sub hypothesis:** There is an effect on the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector.

- **The third sub-hypothesis:** There is an impact on the use of artificial intelligence in the internal audit process on strengthening governance procedures in the Palestinian government sector.

6. Study variables:

- **The independent variable:** The independent variable in this study is the use of artificial intelligence in the internal audit process.

- **Dependent variables:** The variables of this study are drunk in the following elements:

1. Audit risk management.
2. Examining and evaluating the internal control system.
3. Strengthening governance procedures.

7. Study model:

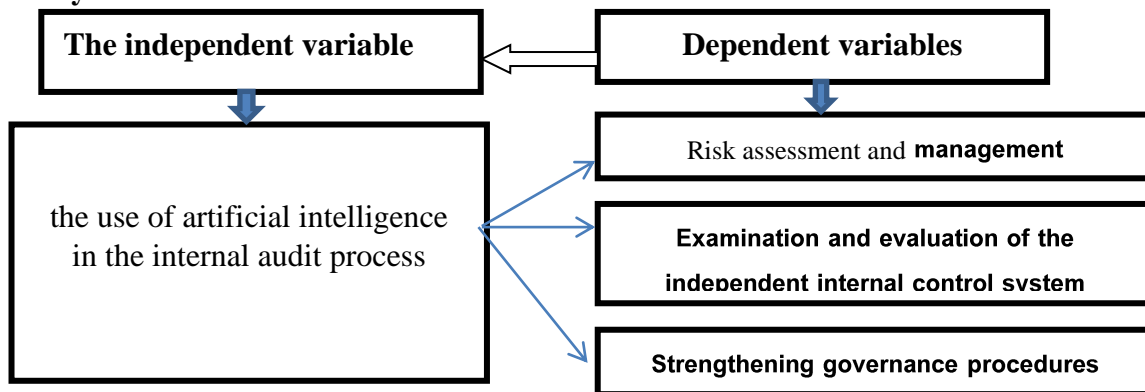


Figure 1: Study model

The limits of the study: The results of this study are determined by the following limits:

- **Time limit:** The period it takes to prepare this study during 2021.

Human limit: Director of audit department, head of audit department, and internal audit examiners.

- **Spatial limit:** Palestinian government ministries.

- **Objective limit:** Examining the effectiveness of the use of artificial intelligence in the internal audit process and its impact on risk management, control and governance in the Palestinian government sector.

8. Previous studies:

Previous studies and literature represent the basis on which the researchers draw the contents of their study, which dealt with the variables of the subject matter of the study as follows:

The (Mardini & Alkurdi, 2021)) study aimed at conducting an extensive review of a literature review on artificial intelligence and its impact on accounting, which identified the study's problems in critically using AI in accounting, which support researchers in investigating the study gaps in the near future and the methodology used. (Al bawwata & Frijat, 2021) Analyzes Auditors' Perceptions of AI and Its Contribution to Quality Audit, where AI systems have made significant changes in the audit process, yet opponents of the AI revolution view this growth as a step backwards as many auditors fail to adapt to this new environment and this will lead to their regression. This study also provides empirical evidence on how local corporate auditors in Jordan understand the use of artificial intelligence in auditing, while a study (Al-Samarrai & Al-Sharda, 2020) examined the role of AI techniques using digital auditing in achieving the quality of auditing and supporting the audit strategy used by auditing companies in the Kingdom of Bahrain, The study found that the use of Artificial Intelligence techniques contributes to the achievement of quality in the audit process, as well as contribute to supporting the implementation of the audit strategy in the Kingdom of Bahrain, and the progress of the use of ICT in business organizations in the Kingdom of Bahrain imposes on audit companies in the Kingdom of Bahrain a new reality that requires auditors to keep pace with this development, and to move towards the use of ICT in the provision of audit services, while the study (ucoglu, 2020) The results of the study revealed that the use of AI techniques led to the emergence of different ways to accomplish the tasks of the audit process, which affected the auditing profession, and despite these flaws, the application of AI technologies has many advantages, such as: increase efficiency and effectiveness through faster data analysis, high-quality auditing, reduced errors, early risk

identification, and creating a competitive advantage. The big four audit firms have developed several AI technologies that are used to manage the audit process, and automated auditing has been carried out in certain areas, such as cash auditing, data analysis, and risk assessment, as study (Munoko, Brown-Liburd, & Vasarhelyi, 2020) has addressed, The ethical implications of using Artificial Intelligence in the review, the study concluded that the four major audit firms reported the use of Artificial Intelligence (AI) in their audit and consulting functions, and in areas such as audit planning risk assessments, transaction testing, analysis, audit worksheets, and other uses and advantages of AI. In the audit profession, while the (Ghanoum & Alaba, 2020) study explored the role of artificial intelligence in enhancing the effectiveness of the audit process, the study found that Artificial Intelligence has a wide-ranging positive impact on the overall quality of audits, and AI enhances the quality of auditing by facilitating and enhancing effectiveness in key steps involved in the audit process. The field explored by this study is that the main link between Artificial Intelligence and the effectiveness of the audit process is to reduce errors that were causing auditors to repeat work, and AI reduces the time needed to categorize and compare transactions further, which is important because it contains useful reference tools in the analysis of transactions in the general ledger. Therefore, in the study sample, they prefer to use AI-based auditing systems rather than traditional auditing tools, and the Study (Al Jaber, 2020) discussed the impact of Artificial Intelligence In its dimensions (expert systems, representation of knowledge and inference, automatic learning) on the efficiency of accounting systems in its dimensions (accounting system integration, accounting information system interconnection, accuracy of accounting work, quality interpretation of accounting information, quality presentation of accounting information in Jordanian banks) and showed results The study showed the impact of the use of artificial intelligence on the efficiency of accounting systems in Jordanian banks, and a study (Taedit, 2019) showed the importance of adopting the ICT environment resulting from the modern digital economy in activating auditing work under accounting information systems using intelligence applications Industrial, the results of the study revealed that the use of the expert system in the field of accounting and auditing entails the preservation of knowledge and its transfer from experts arbitrators to new auditors and accountants, thus playing an important role in the development of performance and improvement of skills in decision-making, especially when there are no highly experienced professionals, as Expert systems play an important role in many areas of auditing, including improved efficiency and expertise, planning, internal control and reporting, and a study (Anbar, 2016) on the role of AI technology in improving the performance of auditing and documentation, In order to positively affect the auditing profession, determine the expected impact of relying on AI technology in improving the quality of the audit process, and prepare a proposed electronic program that conducts auditing work starting with planning, through sampling and documentation of work sheets, and ending with the preparation of the draft report and evaluation reports of the performance of the regulatory work, and based on the premise (the adoption of Artificial Intelligence technology in the stages of the audit process will lead to the success of the auditing profession and improve its quality, intelligence The study (Othman, 2012) talked about the possibility of using artificial intelligence techniques in controlling the quality of internal audit in Jordanian public joint stock companies, and concluded that there is an impact on the use of Artificial Intelligence techniques in controlling the quality of internal audit (professional care, management of internal audit activities, risk management evaluation, planning and implementation of the audit process, delivery of results) in Jordanian public joint stock companies.



8.1 Analysis of previous studies for the current study:

Through the researchers' reading of previous studies and the extent to which they are used in the field of study subject of the study, it was found that the studies are distributed on the following axes and trends:

- 1- Identify the role of AI technologies in improving the performance of auditing work and documenting them, which positively affects the auditing profession, and determine the expected impact of ai technology in improving the quality of the audit process.
- 2- Demonstrating the importance of adopting the ICT environment resulting from the modern digital economy in activating auditing, under accounting information systems using artificial intelligence applications.
3. To show the impact of ai in its dimensions (expert systems, representation of knowledge and inference, automatic learning) on the efficiency of accounting systems in their dimensions (accounting system integration, accounting information system interconnection, accuracy of accounting work, quality interpretation of accounting information, quality presentation of accounting information).
4. Impact statement for the use of AI techniques in adjusting the quality of internal audit through (professional care, internal audit activities management, risk management assessment, planning and implementation of the audit process, delivery of results).

9.2 Therefore, what distinguishes this current study is:

1. Create a theoretical and thought framework, and provide theoretical and field milestones for organizations about the use of artificial intelligence in internal audit.
2. This study, according to the researchers, is one of the first studies in Palestine that measure the effectiveness of the use of artificial intelligence in the internal audit process, and its impact on risk management, control and governance in the Palestinian government sector.
3. This study was characterized by the measurement of the use of artificial intelligence in the internal audit process through (risk management and evaluation, examination and evaluation of the internal control system, and strengthening governance procedures), where previous studies used other dimensions to measure them according to the researchers.
4. The time period of previous studies and the size of the sample selected, where the study addressed the opinions of internal auditors in the Palestinian ministries of the Palestinian National Authority.

9. Theoretical framework of the study

9.1 First: Introduction to Artificial Intelligence:

The term artificial intelligence appeared in the 50th century by the world (Alan Turing), means the assessment of the intelligence of the computer for its ability to simulate the human mind, and then attempts followed but did not achieve high-level progress for twenty years due to the limitations of computer capabilities, yet these attempts did not stop; Artificial intelligence aims to understand the complex mental processes performed by the human mind during the process of thinking and who seamounts have been translated into the corresponding accounting processes that increase the ability of the computer to solve complex problems (Al-Samarrai & Al-Sharda, 2020).

9.2 The concept and components of artificial intelligence

The idea of artificial intelligence depends on the ability of the machine (computer) to communicate or communicate information to individuals (as feedback) as if they were dealing with the same sex, without realizing that they are communicating with a smart

machine (Rashwan, Alhelou, 2020), artificial intelligence (Tuomi, 2018) is known as "a machine that understands and interprets sounds and languages, works to solve problems, can diagnose medical conditions, control cars on roads, play chess, play chess. It is often a system that possesses the ability to perform tasks associated with living things" which is the intelligence manufactured by man in machines or computers and is a qualitative leap in the rights of theoretical and applied sciences and by which the intelligence of the human brain was transferred to computers (Atham, 2019), and is known as part of computer science aimed at designing intelligent systems that give the same characteristics that we know intelligence in human behavior, and it works based on the principle of Matching the formations by which things, events and processes can be described using their qualitative properties and their logical and computational relationship (Jamil, Osman, 2015), and i know it (Al Jaber, 2020) as a technique that contributes to the management of processes and tasks with more sophisticated and intelligent mechanisms than the man who created it and give sensuous knowledge and ingredients, helping it to learn spontaneously and self-development. (Hussain, 2018), has classified Artificial Intelligence into three types: narrow artificial intelligence, which is related to only one area, and the second: artificial intelligence, which relates to systems that operate on their own without human intervention, and the third: super-artificial intelligence, which is far beyond the capabilities and intelligence of humans.

The researchers believe that artificial intelligence is machines or systems that learn and acquire skills beyond the capabilities of humans, and perform complex tasks and have the ability to decipher sounds, analyze and interpret languages, and can think, lead and make decisions fully without human intervention.

9.3 AI technologies and systems

AI is a method that corresponds to a certain extent with the human method of problem solving and data processing, and it also provides alternatives to human energy, and its characteristics are also: independence, prediction and the performance of complex tasks, as well as surveillance (Al Jaber, 2020), and the most prominent developments on artificial intelligence during the previous two years include the following (www.alarabiya.net):

- 1. Machine learning and deep learning:** it is one of the most important applications of artificial intelligence that allows the machine to learn and access a huge amount of data and then make decisions, such as prediction systems, classification, speech recognition, computer vision and self-driving cars.
- 2. The technique of converting a fixed image into a video:** through which a fixed image of a specific person is focused and the geometric shape of his face is recognized, and is added as a mask on the face of another person speaking in a video.
- 3. Writing content:** Through this technique, coherent text paragraphs are created and machine translation and answer questions.
- 4. AI-based treatments:** these are rapidly evolving treatments in terms of facial recognition, speech and machine learning, these are used in cars and healthcare and one of their most important features is saving human lives.
- 5. Artificial intelligence technologies adapted to human uses:** it specializes in speakers and the resulting areas of shopping by Google Home and Alexa, which are high-speed technologies in development and relate to smartphones, tablets, computers and Televisions.
- 6. Improving facial recognition technology:** an important and necessary technology in the field of airports, railways, shopping malls and financial services, which is a rapid technology in progress.



7. Cloud Computing: A technology developed through artificial intelligence that has facilitated data storage, retrieval and analysis to help reduce costs.

8. Cyber security: By relying on cloud computing and for fear of security breaches, companies have resorted to smarter ways of electronic insurance, so repeated neural networks have been used to address breaches.

9.4 Adopt artificial intelligence in internal audit

Internal audit is defined as an independent function within the organization carried out by persons affiliated with the institution, and their role is to periodically examine all information and financial and administrative data, which is the responsibility of the management of the institution and check whether the procedures in place and guarantees are sufficient, that the processes are legitimate and the information is sincere, and that all activities within the organization are conducted in accordance with the regulations established (Mohammed, 2018), where the audit procedures are processes that include the progress of activities to convert inputs, which consist of information that is audited to the outputs and outputs are the opinions of the auditors (Zhang, 2019), because the acceleration and abundance of data and daily transactions led to the reliance on modern technologies represented by expert systems and others in conducting internal audits in order to enhance the processing capacity of this data while maintaining the effectiveness and reliability of the audit process (Ghanoum & Alaba, 2020). Artificial intelligence in the audit process has three types identified by (Munoko, Brown-Liburd, & Vasarhelyi, 2020):

- 1. AI Assistive Systems:** Systems that help auditors in the decision-making process, where machines do repetitive daily work and tasks performed by the auditor on a daily basis, but the decision-making process is made only by auditors.
- 2. Enhanced AI systems:** These are analytical intelligence because they give the interaction between systems and their environment and learn from the checker, and therefore decisions are made in cooperation between the checker and the machine, and here the auditors and AI systems cooperate in decision-making.
- 3. Independent AI systems:** systems that operate without human intervention, in which case the systems adapt to a variety of conditions, and here the actions are taken independently by Artificial Intelligence without the intervention of the auditor.

AI systems have dramatically changed the vetting process, and auditors believe enhanced AI systems are easy to use for auditing, unlike independent AI systems, and as AI assistive systems have a high contribution to audit quality, independent AI systems are working to pass the entire decision-making process while a large part of them are passed if enhanced AI systems (Al bawwata & Frijat, 2021) are adopted. The importance of AI technologies in internal auditing is shown as follows:

- The adoption of AI technologies in internal audit invests time, in the sense of reducing the time and effort needed to plan the internal audit program by relying on expert systems and electronic auditing.
- Relying on digital and electronic auditing reduces the cost of conducting internal audits.
- The use of business technology technologies increases the efficiency and effectiveness of internal audit procedures.
- The use of electronic technologies in the internal audit process reinforces objectivity and non-bias in auditing public sector financial statements.
- The use of advanced accounting software and systems detects fundamental errors and protects public assets and property through electronic follow-up.

The (Noor & Mansor, 2019) study emphasizes that Artificial Intelligence enhances the audit process through the correct exchange of information between auditors and systems and exchange of conversation between all stakeholders involved in the audit process.

9.5 The use of artificial intelligence in internal audit and its impact on risk management and assessment

A vast amount of information produced daily passes through the internal audit environment, which increases the risk and therefore data must be analysed in the context of managing these risks, which play a major role in decision-making, and to complete the internal audit process in the public sector efficiently, effectively and on time, artificial intelligence is used in the processing of natural languages, reading receipts and payments, contracts, registration bonds, financial matches, adjustments, etc., and then matching pre-defined texts by auditors to prepare samples for items of relative importance that are of relative importance. It needs special attention, because it is highly risky, and also uses artificial intelligence in the processes of data extraction, identification of exceptions or paradoxes, analysis of patterns and trends, sending custom warnings, and marking of risky data that relates to assessments, inventory and adjustments, and the role of auditors lies in extracting accounting and financial data from the institutional and financial systems of institutions and uploading them to artificial intelligence tools, which in turn identify errors in cases of anomalies, manipulation and forgery and the creation of dynamic panels of digital devices by using algorithms and comparing them with indicators identified by the auditor, and thus identify strengths and weaknesses, detect accounting irregularities, abuses and accurately assess risks (World Bank, 2020).

The use of Artificial Intelligence in the audit process is described as "a hybrid set of technologies that complement and change audits" (Isa, et al., 2016), and the adoption of Artificial Intelligence in internal audit facilitates the work of auditors and accelerates the completion of their tasks, and detects risks very quickly in the case of traditional audits. (Kokina, Davenport, 2017) confirmed that relying on artificial intelligence in the internal audit process accomplishes repetitive tasks and processes and analyzes large numbers of data in a small time, which facilitates the work of internal auditors (Luo et al., 2018).

9.6 The use of artificial intelligence in internal audit and its impact on the examination and evaluation of the internal control system

Auditors are interested in Artificial Intelligence as a supporting system for the achievement of their multiple tasks depending on the multiplicity and diversity of companies, where relying on technology in the audit process to reach the highest quality, strengthening internal control and conducting the audit process in a timely manner, and to ensure that the internal audit process is carried out in a timely manner, requires an effective internal control system to ensure the reliability of information and ensure the effectiveness and integrity of internal controls (Shen, Chen, Huang, & Susilo, 2017) and to achieve this is based on the tools of artificial intelligence as follows:

- Internal auditors in the audit process rely on decision support systems, which are computer applications consisting of inputs, processes, outputs, and feedback, and collect and analyze accounting, financial and administrative data to assist management in decision-making.
- Relying on a robot as a kind of artificial intelligence to perform internal audits helps in risk assessment and planning for the internal audit process.
- Through expert systems and programming models, internal auditors are able to easily examine and evaluate the internal control system, plan the audit process, distribute tasks to auditors, analyze accounts and processes, assess relative importance, perform



analytical examination procedures, detect and identify problems, analyze budget deviations, evaluate performance, and form an opinion on the continuity of the facility.

- Internal auditors rely on neural networks as a type of AI tool in forecasting and looking ahead, assessing the company's financial position, selecting a review sample, detecting errors, fraud and any substantial financial or administrative irregularities.
- Through the use of AI tools, internal auditors ensure that the internal audit process is completed in high quality and in accordance with international and professional standards, in addition to the possibility of developing and updating the management of internal audit activities, and providing internal auditors with high skills in the preparation of internal audit programs and writing financial and administrative reports, according to which the company's critical decisions are made.

9.7 The use of artificial intelligence in internal audit and its impact on strengthening governance procedures

The auditing method has shifted from documentary auditing to digital audit, which is a type of artificial intelligence, and has been relied upon through expert systems, computerized systems and accounting programs to facilitate the auditing process in major private and public institutions, reflecting on the possibility of administrative control over the assets and funds of public institutions directly, and this led to the devolution of powers and the emergence of an administrative pyramid based on an organizational method in which the work, objectives, duties and responsibilities required, implementation of strategic tasks and protection of public rights and interests, and maintaining the principle of transparency and accountability, and this This strengthens governance in the public (Al-Samarrai & Al-Sharda, 2020).

10 Practical framework of the study (field study):

The researchers conducted the field study to test the hypotheses of the study and achieve its objectives as follows:

10.1 The curriculum:

The descriptive analytical approach has been used as the appropriate method for the study of social and human phenomena, and the collection of data is based on secondary and primary sources as follows:

Secondary sources: it consists of books, research, scientific messages, periodicals and the Internet.

- Primary sources: It consists of a questionnaire specifically prepared for this purpose to obtain the required information, and the Statistical Program (SPSS) is used to analyze the survey list and test the study assignments.

Second: Study society:

The study community consists of the director of the audit department, the head of the audit department, and the internal audit auditors in the 40-member Palestinian government ministries, and the method of comprehensive inventory was used for the small size of the society.

10.2 The study tool:

The study used the questionnaire list as a key tool in the field study, where the survey list was developed in the light of a comprehensive review of previous theoretical and scientific studies on the study variables, and the survey list included two main sections:

- The first section: consists of personal and functional data for the study community, and consists of 3 paragraphs.

- **Section 2:** It was divided into three axes as follows:

* **The first axis:** risk management and evaluation, consisting of (8) paragraphs.

* **The second axis:** the examination and evaluation of the internal control system, consisting of (6) paragraphs.

* **The third axis:** strengthening governance procedures, consisting of (7) paragraphs.

The answers to the paragraphs of the axes were according to the Five-Point Leckert scale, as described in the following table:

Table No..1: the Five-Point Leckert scale

Classification	Too big.	Big.	Medium	A few.	Very little.
The degree of approval	5	4	3	2	1

10.3 The validity of the questionnaire: the questions of the questionnaire that were formulated measure what was developed to measure it, as it means by truth: the inclusion of the questionnaire for all the elements that must appear in the analysis on the one hand, and the clarity of its paragraphs and vocabulary on the other, so that they are understandable to all who use it, and the researchers measured the sincerity of the questionnaire in two ways:

A- The honesty of the arbitrators (virtual honesty): The researchers presented the questionnaire to a group of arbitrators made up of university professors specializing in accounting and statistics.

B- The correct measurement:

1. Internal consistency of the resolution paragraphs: The researchers calculated the internal consistency of the questionnaires on the 30-individual survey community by calculating the coefficient of correlation between each of the questionnaire paragraphs and the total grade of the same field.

- Table (2) shows the coefficient of correlation between each of the paragraphs of the first hypothesis "there is an effect of the use of artificial intelligence in the internal audit process on the management and evaluation of risks in the Palestinian government sector" and the overall degree of the hypothesis, which shows that the correlation coefficients shown range from (0.593 - 0.799), which is a function at a moral level ($\alpha = 0.01$) and thus is considered to be true of what was set to measure it.

Table No. (2) Pearson's correlation coefficient between each of the first hypothesis paragraphs and the overall degree of the hypothesis.

Axis	Pearson Correlation Coefficient	Moral level
Internal auditing using AI technologies helps improve the efficiency and effectiveness of the audit process.	0.593**	0.00
The use of AI tools increases the quality of internal audit services and reduces risk.	0.799**	0.00
AI applications and innovative methods support internal audit, helping to manage and evaluate risks.	0.547**	0.00
AI technologies contribute to improved internal audit activities and the development of risk management and regulatory systems.	0.712**	0.00
Internal auditors determine the extent to which objectives and policies are achieved, and identify and report deviations.	0.673**	0.00



The use of AI tools in the internal audit process helps improve the means used to protect and control your organization's assets.	0.784**	0.00
In-house auditors are trained to keep up with technological developments in the audit process to improve their performance in risk management and evaluation.	0.722**	0.00
The use of AI technologies in the internal audit process helps to disclose the underlying risks.	0.741**	0.00

**** Link D statistically at indication level ($\alpha=0.01$)**

- Table 3 shows the coefficient of correlation between each of the second paragraphs of hypothesis: "There is an effect on the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector" and the overall degree of the hypothesis, which shows that the correlation coefficients shown range from (0.547 to 0.841), which is a function at a moral level ($\alpha=0.01$) and thus is considered to be true of what it has developed.

Table No. (3) Pearson's correlation coefficient between each of the second hypothesis paragraphs and the overall degree of the hypothesis.

Axis	Pearson Correlation Coefficient	Mora l level
AI tools are a supportive strategy for completing internal audit procedures by using technology to achieve the quality of the audit process.	0.708**	0.00
The use of AI technologies helps automate the audit, examination and testing of the internal control system.	0.547**	0.00
The use of Artificial Intelligence technologies in the internal audit process is one of the most important means used to verify the effectiveness of the internal control system.	0.841**	0.00
The efficiency of the audit process is utilized by using artificial intelligence to evaluate the financial and accounting system.	0.753**	0.00
The use of artificial intelligence in the internal audit process plays a critical role in correcting the deviations of the internal control system and providing timely advice and solutions.	0.696**	0.00
The use of artificial intelligence in the internal audit process helps identify weaknesses in the internal control system and develop appropriate solutions to eliminate them.	0.583**	0.00

**** Link D statistically at indication level ($\alpha=0.01$)**

- Table 4 shows the coefficient of correlation between each of the third paragraphs of hypothesis" there is an effect on the use of artificial intelligence in the internal audit process on strengthening governance procedures in the Palestinian government sector" and the overall degree of the hypothesis, which shows that the correlation coefficients shown range from (0.522 to 0.774), which is a function at a moral level ($\alpha=0.01$) and thus considers this hypothesis to be true to what it has been developed to measure.

Table No. (4) Pearson's correlation coefficient between each of the third hypothesis paragraphs and the overall degree of the hypothesis.

Axis	Pearson Correlation Coefficient	Moral level
The use of AI tools in the internal audit process requires attention to technical and administrative governance and the promotion of transparency and responsibility as their principles.	0.733**	0.00
The use of AI technologies in the internal audit process helps evaluate its governance system and risks.	0.774**	0.00
The use of AI tools contributes to internal auditing in the proper application of governance mechanisms.	0.648**	0.00
The use of AI technologies in the internal audit process contributes to the activation of the role of governance by assessing and achieving accountability, and instilling confidence in management processes and financial reporting.	0.646**	0.00
The use of AI tools in the internal audit process helps add value to the organization through the functions it is now performing under the governance system.	0.679**	0.00
The use of AI technologies in internal audit is a key pillar to ensure an effective governance framework.	0.522**	0.00
The use of AI tools in the internal audit process helps support the governance system to help your organization's management exploit its resources efficiently.	0.524**	0.00

****Link D statistically at indication level ($\alpha=0.01$)**

2. The constructive honesty of the list areas: the constructive honesty of the questionnaire paragraphs was calculated on the study community, by calculating the correlation coefficient between the total score of each axis and the total score of the questionnaire.

Table 6 shows that all correlation coefficients in all resolution axes are statistically functioning at a moral level ($\alpha=0.01$), so that all resolution axes are considered to be true of what they were designed to measure.

Table (6) Pearson correlation coefficient between the score of each area of resolution with the overall degree of resolution

R.M.	Axis	Pearson Correlation Coefficient	Moral level
The first	Risk management and evaluation.	0.911**	0.00
Second	Examining and evaluating the internal control system.	0.908**	0.00
Third	Strengthening governance procedures.	0.863**	0.00

**** Link D statistically at indication level ($\alpha=0.01$)**

The results of pearson link coefficients in table 6 in the previous table (6) indicate the availability of the sincerity of internal consistency in the area of the list of resolutions, with the highest correlation coefficient of 0.911 for the first axis, while the lowest correlation coefficient was 0.863 for the third axis.



10.4 Khamsa: Stability:

The researchers tested the resolution stability by calculating the Cronbach Alpha correlation coefficient for each of the list areas, as shown in table 7:

Table No. (7) Resolution stability results using alpha kronbach correlation coefficient

R.M.	Axis	Number of paragraphs	Stability Factor (Alpha Kronbach)	Structural honesty laboratory
The first	Risk management and evaluation.	8	0.842	0.918
Second	Examining and evaluating the internal control system.	6	0.780	0.883
Third	Strengthening governance procedures.	7	0.768	0.876
Total grade of all axes		21	0.913	0.956

Source: The researcher's preparation based on resolution data, 2021.

It is clear from the previous table that the coefficients of Alpha Kronbach range from 0.842-0.768, while the transactions of honesty ranged from 0.876-0.918, which indicates that the resolution enjoys consistency and honesty, so that the researchers have confirmed the stability and credibility of the questionnaire, thus making them fully confident in the validity of the questionnaire and its validity to analyze the results, and to answer the study's questions and test its hypotheses.

10.5 Sixth: Results of the field study:

- Descriptive statistics of the personal information of the sample:

Table 8 shows the personal characteristics of the study sample in terms of scientific qualification, specialization, job title, and years of experience:

Table 8 shows the distribution of the sample according to their personal variables

Statement		Iteration	Percentage %
Scientific qualification	Doctor	5	12.5
	Master	11	27.5
	Bachelor	24	60.0
Total		40	100.0
Job title	Director of audit	5	12.5
	Head of Audit	11	27.5
	Internal Auditor	24	60.0
Total		40	100.0
Years of experience	5 to 10 years	15	37.5
	11-15 years	17	42.5
	More than 15 years	8	20.0
Total		40	100.0

It is clear from the previous table that:

- The study community is represented by department directors, department heads and internal auditors working in the internal audit department of Palestinian government ministries, and is directly related to the nature of the use of artificial intelligence in the internal audit process in the Palestinian Ministry of Finance, which makes the society suitable for study.
- The scientific qualifications of members of the community range from ph.d., master and bachelor's degree, and the study community has great career experience in their work, making the study community representative of all practical qualifications and appropriate experiences.
- Years of working experience for community members are less than 5 to 10 years, from 11 to 15 years, and from 15 years and over, and the members of the study community have years of great experience in their work, making them the right experience to do their job to the fullest.

10.6 Statistical analysis of the results of the study and testing hypotheses:

*** Analysis and testing of the first hypothesis paragraphs:** (There is an effect on the use of artificial intelligence in the internal audit process on the management and evaluation of **risks in the Palestinian government sector**), the Test (T) was used to determine the average response score reached the average score of (3) or not in the individuals of the sample, and the results are shown in the following table:

Table No. (9) Results of statistical analysis of the first hypothesis paragraphs

M	Phrases	Arithm etic mediu m	Standa rd deviati on	Relati ve weigh t	T test value	Probabi lity value (.sig)	Ord er
1	Internal auditing using AI technologies helps improve the efficiency and effectiveness of the audit process.	4.33	0.656	86.50	12.778	0.000	1
2	The use of AI tools increases the quality of internal audit services and reduces risk.	4.25	0.494	85.00	16.018	0.000	2
3	AI applications and innovative methods support internal audit, helping to manage and evaluate risks.	4.05	0.552	81.00	12.022	0.000	7
4	AI technologies contribute to improved internal audit activities and the development of risk management and regulatory systems.	4.20	0.648	84.00	11.704	0.000	4
5	Internal auditors determine the extent to which objectives and policies are achieved, and identify and report deviations.	4.18	0.636	83.50	11.685	0.000	5
6	The use of AI tools in the internal audit process helps	4.25	0.630	85.00	12.540	0.000	2



	improve the means used to protect and control your organization's assets.						
7	Internal auditors are trained to keep up with technological developments in the audit process to improve their performance in risk management and evaluation.	3.83	0.844	76.50	6.183	0.000	8
8	The use of AI technologies in the internal audit process helps to disclose the underlying risks.	4.18	0.712	83.50	10.436	0.000	5
Total paragraphs		4.15	0.451	83.12	16.218	0.000	-

The above table shows the following:

- The result of approval of the first area, where the average answers in the special paragraphs of the hypothesis range from (3.83) to (4.33).

Paragraph (1), which states that "internal auditing using AI techniques helps improve the efficiency and effectiveness of the audit process", has the highest computational average of (4.33), relative weight (86.50%), while paragraph (7) which states that "auditors are trained to keep up with technological developments in the audit process to improve their performance in risk management and evaluation" has obtained the lowest computational average of (3.83%) and relative weight (76.50%).

- The arithmetic average for all the hypothesis paragraphs (4.15) and a relative weight of 83.12.

The result of the hypothesis test: From the above it can be concluded that (T) is less scheduled than the calculated (T), which means rejecting the nihilistic hypothesis and accepting the alternative hypothesis that "there is an effect on the use of artificial intelligence in the internal audit process on the management and evaluation of risks in the Palestinian government sector."

The researchers believe as a result of the hypothesis test that the current study is consistent with the results of the study of each (ucoglu, 2020), (Munoko, Brown-Liburd, & Vasarhelyi, 2020), (Ghanoum & Alaba, 2020), (Othman, 2012) that there is an effect on the use of artificial intelligence in the internal audit process on the management and evaluation of risks that cause auditors to repeat their work, and determine early, but differ with the results of the study of both (Mardini & Alkurdi, 2021), (Al bawwata & Frijat, 2021), (Al-Samarrai & Al-Sharda, 2020), (Tasit, Araban, 2019), (Anbar, 2016).

*** Analysis of the test of the second hypothesis paragraphs:**(There is an effect of the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector), the test (T) was used to determine the average response score has reached the intermediate score of (3) or not in the members of the sample, and the results are shown in the following table:

Table No. (10) Results of statistical analysis of the second hypothesis paragraphs

M	Phrases	Arithm etic mediu m	Standar d deviati on	Relati ve weigh t	T test value	Probabil ity value (.sig)	Ord er
1	AI tools are a supportive strategy for completing internal audit procedures by using technology to achieve the quality of the audit process.	4.18	0.712	83.49	10.43 6	0.000	2
2	The use of AI technologies helps automate the audit, examination and testing of the internal control system.	4.13	0.607	82.50	11.72 0	0.000	3
3	The use of Artificial Intelligence technologies in the internal audit process is one of the most important means used to verify the effectiveness of the internal control system.	3.83	0.813	76.48	6.418	0.000	6
4	The efficiency of the audit process is utilized by using artificial intelligence to evaluate the financial and accounting system.	4.25	0.588	85.00	13.43 7	0.000	1
5	The use of artificial intelligence in the internal audit process plays a critical role in correcting the deviations of the internal control system and providing timely advice and solutions.	3.98	0.768	79.52	8.034	0.000	4
6	The use of artificial intelligence in the internal audit process helps identify weaknesses in the internal control system and develop appropriate solutions to eliminate them.	3.95	0.677	79.00	8.869	0.000	5
Total paragraphs		4.05	0.482	81.00	13.77 3	0.000	-

The above table shows the following:

- The result of approval of the first area as the average of the answers in the special paragraphs of the hypothesis ranges from (3.83) to (4.25).

Paragraph sup allow (3) which states that "big data analysis helps reduce time, design and develop new products to achieve competition", and paragraph (7) which states that "big data analysis helps estimate the company's market share by determining the volume of sales to



maintain the same level of profits or perhaps higher levels of profits" has obtained the highest computational average of (4.25), the relative weight (85.00%), while paragraph (4) which states that "big data analysis enhances efficiency for operational activities, resulting in increased revenue and added value to the company" has the lowest computational average of (3.83%) and relative weight (76.48%).

- The arithmetic average for all the hypothesis paragraphs (4.05) and a relative weight of 81.00.

The result of the hypothesis test: From the above it can be concluded that (T) is less scheduled than the calculated (T), which means rejecting the nihilistic hypothesis and accepting the alternative hypothesis that "there is an effect of the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector."

The researchers believe that the current study is consistent with the results of the study of each (Tsaedit, Araban, 2019), (Anbar, Mohammed, 2016) that there is an effect on the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system and oversight work within institutions, and improve the efficiency of the internal control system, but differ with the results of the study of both (Mardini & Alkurdi, 2021) (ucoglu, 2020), (Munoko, Brown-Libur, & Vasarhelyi, 2020), (Al Jaber, 2020), (Ghanoum & Alaba, 2020), (Al bawwata & Frijat, 2021), (Al-Samarrai & Al-Sharda, 2020), (Mardini & Alkurdi, 2021).

*** Analysis and testing of the paragraphs of the third hypothesis:** (There is an effect of the use of artificial intelligence in the internal audit process on the strengthening of governance procedures in the Palestinian government sector), the test (T) was used to determine the average degree of response has reached the average score which is (3) or not in the individuals of the sample, and the results are shown in the following table:

Table No. (11) Results of statistical analysis of the third hypothesis paragraphs

M	Phrases	Arith metic medi um	Stand ard devia tion	Relati ve weigh t	T test value	Proba bility value(. sig)	Ord er
1	The use of AI tools in the internal audit process requires attention to technical and administrative governance and the promotion of transparency and responsibility as their principles.	4.05	0.749	81.00	8.862	0.000	1
2	The use of AI technologies in the internal audit process helps evaluate its governance system and risks.	3.98	0.620	79.51	9.951	0.000	2
3	The use of AI tools contributes to internal auditing in the proper application of governance mechanisms.	3.90	0.591	78.00	9.639	0.000	6
4	The use of AI technologies in the internal audit process contributes to the activation of the role of governance by assessing and achieving accountability, and instilling confidence in management processes and	3.98	0.660	79.50	9.347	0.000	2

	financial reporting.						
5	The use of AI tools in the internal audit process helps add value to the organization through the functions it is now performing under the governance system.	3.95	0.597	79.00	10.064	0.000	5
6	The use of AI technologies in internal audit is a key pillar to ensure an effective governance framework.	3.90	0.545	78.00	10.437	0.000	6
7	The use of AI tools in the internal audit process helps support the governance system to help your organization's management exploit its resources efficiently.	3.98	0.660	79.50	9.347	0.000	2
Total paragraphs		3.96	0.410	79.21	14.803	0.001	-

The above table shows the following:

- The result of approval of the third area as the average of the answers in the paragraphs of the hypothesis ranges from (3.90) to (4.05).

- Paragraph (1), which states that "the use of AI tools in the internal audit process requires attention to technical and administrative governance and the promotion of transparency and responsibility as its principles", has received the highest average account of (4.05) and relative weight (81.00%), while the two paragraphs, paragraph 3, which states that "The use of AI tools contributes to the internal audit process in the proper application of governance mechanisms" and paragraph (6), which states that "the use of AI techniques in the internal audit process is one of the prerequisites for ensuring an effective governance framework" with the lowest computational average of (3.90) and relative weight (79.00%).

- The arithmetic average for all the hypothesis paragraphs (3.96) and a relative weight of 79.21.

The result of the hypothesis test: From the above it can be concluded that (T) is less scheduled than the calculated (T), which means rejecting the nihilistic hypothesis and accepting the alternative hypothesis that "there is an effect on the use of artificial intelligence in the internal audit process to strengthen governance procedures in the Palestinian government sector."

The researchers believe as a result of the hypothesis test that the current study is not consistent with the results of any previous study (Mardini & Alkurdi, 2021), (Al bawwata & Frijat, 2021), (ucoglu, 2020), (Munoko, Brown-Libur, & Vasarhelyi, 2020), (Al-Samarrai & Al-Sharda, 2020), (Ghanoum & Alaba, 2020), (Al-Samarrai & Al-Sharda, 2020), (Tasit, Araban, 2019), (Anbar, 2016), (Othman, 2012).

10.7 Analysis of the measurement regression of the study variables:

10.7.1 Regression analysis of the first child variable: (Risk Management and Assessment).

Table (13) Slope Analysis of the Variable of the "Risk Management and Assessment"

Independent variables	Regression coefficients	Regression R	Selection Factor R2	Value t	Probability value	Indication level at (0.05)
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					sig..	
Hard	0.752			1.48 2	0.147	
Risk management and evaluation	0.322	0.752	0.565	7.02 9	0.000	Slab
ANOVA Contrast Analysis						
F test value	49.41	R-2		0.55 4	Probability value	0.000

*** Variable-dependent D-cost driving strategy at 0.05 indicative level**

To determine the impact of the use of Artificial Intelligence in the internal audit process on risk management and evaluation in the Palestinian government sector, regression analysis was carried out, and the previous table shows that the adjusted selection factor = 0.554, meaning risk management and evaluation (dependent variable) was explained by the change using Artificial Intelligence in the internal audit process (independent variable). The probability value (Sig.) Below the 0.05 level of indication $\geq \alpha$ this indicates the effect of using artificial intelligence in the internal audit process to manage risk in the Palestinian government sector according to the following regression equation:

$$Y = -0.752 + 0.322X_1$$

This means that the use of Artificial Intelligence in internal audit affects the dependent variable (risk management and assessment) by 32.2%.

10.7.2 Regression analysis of the second dependent variable:(examination and evaluation of the internal control system).

Table (14) Regression analysis of the variable of the "Internal Control System Examination and Evaluation"

Independent variables	Regression coefficients	Regression R	Selection Factor R ²	Value t	Probability value sig.	Indication level at (0.05)
Hard	0.650			3.201	0.003	
Inspection and evaluation of the internal control system	0.316	0.650	0.423	5.273	0.000	Slab
ANOVA Contrast Analysis						
F test value	27.801	R-2		0.407	Probability value	0.000

*** Variable Affiliate Strategy Excellence D at 0.05**

To see the impact of the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector, regression analysis was carried out, and the previous table shows that the adjusted selection coefficient = 0.407, which means that the change in the examination and evaluation of the internal control system _ so that the internal control system is reliable (dependent variable) (x-variable) was explained by the change in the use of Artificial Intelligence in the

internal audit process (independent variable), and the probability value (Sig.) Below the 0.05 level of indication $\geq \alpha$ this indicates the effect of the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system in the Palestinian government sector so that it can be relied upon according to the following regression equation:

$$\text{And } 0.650 + 0.0316X_3$$

This means that the use of artificial intelligence in the internal audit process affects the dependent variable (internal control system check and evaluation) by 31.6%.

10.7.3 Regression analysis of the third dependent variable: (strengthening governance procedures).

Table (9) Regression analysis of the variable of the affiliate "Strengthening governance procedures"

Independent variables	Regression coefficients	Regression R	Selection coefficient R2	Value t	Probability value sig.	Indication level at (0.05)
Hard	0.663			1.501	0.139	
Strengthening governance procedures	0.321	0.663	0.586	0.592	0.000	Slab
ANOVA Contrast Analysis						
F test value	36.25	R-2		0.545	Probability value	0.000

* Variable dependent D focus strategy at 0.05 indicative level

To determine the impact of the use of Artificial Intelligence in the internal audit process on strengthening governance procedures in the Palestinian government sector, regression analysis was carried out, and the previous table shows that the adjusted determination coefficient =0.545 means that the change in the strengthening of governance procedures (the dependent variable) was explained by the change in the use of Artificial Intelligence in the internal audit process (independent variable). Below the 0.05 level of significance $\geq \alpha$ this indicates the effect of the use of artificial intelligence in the internal audit process on strengthening governance procedures in the Palestinian government sector according to the following regression equation:

$$\text{And } 0.663 + 0.0321X_3$$

This means that the use of Artificial Intelligence in the internal audit process affects the dependent variable (strengthening governance procedures) by 32.1%.

Conclusions and recommendations

This study aimed at finding out the effectiveness of the use of artificial intelligence in the internal audit process and its impact on the management and evaluation of risks, control and governance in the Palestinian government ministries, as artificial intelligence technologies have imposed a new reality and challenge on the auditors and the audit profession as a result of the dependence of the activities and transactions of government ministries on the computer, which led to the need to keep up with the auditor. The internal architects of this technological development, and the internal auditors had to use modern tools to keep pace with that development in modern technology, one of the most important of



those tools that proved their ability and efficiency in practice artificial intelligence techniques, and based on the results of data analysis and test hypotheses, the study reached a set of results and conclusions, the most important of which:

- The use of artificial intelligence in the internal audit process has a significant impact on the management and evaluation of risks in Palestinian government ministries, and internal auditing using AI techniques helps improve the efficiency and effectiveness of the audit process, and contributes to increasing the quality of internal audit services and reducing risk by helping the company's management improve the means used to protect the organization's assets and control performance.
- There is a significant impact on the use of artificial intelligence in the internal audit process on the examination and evaluation of the internal control system and control systems in the Palestinian government ministries, and AI tools are a supportive strategy for the completion of internal audit procedures through the use of technology to achieve the efficiency and quality of the audit process, where the efficiency of the audit process is utilized in the evaluation of the financial and accounting control system, and the use of Artificial Intelligence in the internal audit process plays a critical role in identifying weaknesses and deviations related to internal control and providing advice and solutions appropriate to eliminate them.
- There is a significant impact on the use of Artificial Intelligence in the internal audit process to strengthen governance procedures and mechanisms in Palestinian government ministries, through the evaluation and realization of transparency and responsibility as their principles, and to give confidence to management processes and financial reports, as the use of AI tools helps in the internal audit process to support ensuring an effective governance framework to help the management of the institution to exploit its resources efficiently, making it indispensable to rely on it, which will prompt many government ministries to pay attention to improving and developing The performance of internal auditors, thereby raising the efficiency and effectiveness of the internal audit process. There are also many difficulties and greetings that limit the use of Artificial Intelligence technologies in the field of internal audit in palestinian government ministries, including the high cost of purchasing or developing and developing specialized electronic auditing techniques and software. In addition, the electronic internal audit process needs to be regulated in terms of the issuance of professional laws and standards governing the use of electronic digital auditing.

In light of the objectives of the study, the nature of the problem and its findings and conclusions, the most important recommendations can be identified:

- The need to direct Palestinian government ministries to adopt the use of Artificial Intelligence applications in the internal audit process, as they provide reduced time and cost and increase the efficiency of the functions of the internal audit process in light of the vast amount of data and complex reports, and then help him reach rational decisions, and the need to enhance the awareness of internal auditors of the importance of the use of AI technologies, and its role in achieving the quality of the audit, conducting the risk assessment process, examining internal control systems, and strengthening the governance system in Palestinian government ministries.

The difficulties and greetings that limit the use of Artificial Intelligence techniques in the field of internal auditing in Palestinian government ministries must be overcome. These include the high cost of purchasing or developing and developing specialized technology and software in the field of auditing. In addition, the electronic internal audit process needs to be regulated in terms of the issuance of professional laws and standards governing the use of

electronic digital auditing. It is also worth focusing on training internal auditors in Palestinian government ministries to use AI technologies and programs to use their services in the audit process, so that they can see the latest technological advances in the field of artificial intelligence.

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