ARTIFICIAL INTELLIGENCE CONTRIBUTION EXTENT IN ESTABLISHING GOVERNANCE PRINCIPLES IN COMMERCIAL COMPANIES

LAMMARI YAMINA[1]

[1]Lecturer (A) Private Law, Faculty of Law and Political Sciences, Mohamed Tahiri Bashar University, Law and Development Laboratory (Algeria).

The E-mail Author: Lammari.yamina@univ-bechar.dz

Received: 05/09/2024 **Published: 15/02/2025**

Abstract:

Artificial intelligence technology has become crucial and potentially hazardous in today's digital age due to the emergence of intelligent applications. The latter have affected various aspects. They contribute to serving and advancing humanity through engineering smart machines, computer devices, and programs that can think like the human brain. This technology can learn, acquire information, analyze data, establish relationships, make sound decisions, and provide appropriate reactions to different situations efficiently. Accordingly, this research addresses the technical and legal methods and mechanisms for leveraging AI applications to develop the principles of governance in commercial companies to preserve the interests of all involved parties.

Keywords: Scientific Development, Digitization Technology, Artificial Intelligence, Governance, Commercial Companies.

INTRODUCTION :

The field of commercial companies is of great importance due to its connection to development and the economy. It is in a constant and continuous movement, which requires precise organization to avoid manipulation and randomness. In the midst of this, concepts emerge that offer organizational solutions. Among these concepts, we find corporate governance, which arose from crises that occurred in the economies of some countries. These crises were caused by poor and stereotypical management of some large and influential companies, which harmed the global economy as a whole.

The term corporate governance is a widely recognized concept in the realm of finance and business. However, it is noteworthy that a novel technology, namely artificial intelligence, has been gaining traction in the same arena. Organizations are leveraging the capabilities of this technology to augment productivity, enhance efficiency, and fortify governance.

Artificial intelligence is utilized to automate processes[1] and bolster decision-making, thereby providing companies with a competitive advantage. Additionally, it is used to scrutinize vast amounts of data to develop predictive models that can be employed to expedite informed decision-making and strategy formulation with heightened precision and rapidity.

Artificial Intelligence (AI) powered analytics offer decision-makers real-time insights into a company's financial performance. This empowers them to rapidly identify areas that require improvement and take corrective action.

Commercial companies are subject to legal regulations that govern their establishment, operation, and dissolution. However, the stage of operation is of particular importance; it is the stage where the company generates wealth and actively participates in the economic cycle. To fulfill the role of maintaining a proper system, it is not enough to have a legal framework in place. Instead, it is crucial to follow a set of procedures and principles that guarantee the implementation of the laws, which are known as "the principles of corporate governance." Additionally, advancements in technology, particularly in artificial intelligence, have brought about new opportunities.

Artificial intelligence leads to the development of enterprises, improving their image, and enhancing their credibility towards national and international economic actors. Accordingly, how can artificial intelligence be leveraged to foster good corporate governance?

To effectively address the research problem, the Descriptive analytics method and multiple approaches are necessary to analyze and extrapolate the research elements. These approaches involve identifying the theoretical basis of artificial intelligence applications, comprehending the mechanisms and principles of governance of Algerian commercial companies, and examining comparative legislation. The ultimate objective is to use this valuable information to create contemporary commercial institutions.

Due to the intricate and unprecedented nature of the research subject, as well as the convergence and integration of legal and economic disciplines, an abundance of varied sources and references were meticulously scrutinized. These encompassed scholarly volumes and papers from prestigious publications, conference proceedings, as well as both official and private online resources.

This paper is divided into two main chapters. The first one deals with principles of governance, their manifestations and uses in Algerian and comparative legislation. On the other hand, the second chapter deals with Artificial intelligence, its theoretical basis, and its applications in the field of commercial companies.

I. Governance, its principles, manifestations and uses in Algerian and comparative legislation:

The topic of our discussion is governance, its principles, and its application in both Algerian and comparative legislation. Our initial focus will be on defining governance and its underlying principles (A). Subsequently, we will explore the diverse ways governance is implemented in Algerian and comparative legislation (B).

A) Good governance, its principles and manifestations:

Good governance can be traced back to an ancient Greek term used to describe the skill of a Greek ship captain in navigating through harsh weather conditions such as waves and hurricanes. This includes upholding noble values, morals, and honest behaviors to ensure the safety and protection of passengers, property, and the goods entrusted to the captain by merchants and marine experts. Such a captain was commonly referred to as the "ruling captain"[2].

1-The concept of governance:

First - the linguistic concept:

It is a term that means the process of control through the rules and foundations to achieve maturity. Other books indicate that it is a word derived from control and refers to more interference and control, to achieve transparency and objectivity. It is defined as a set of systems and controls that regulate relations between owners' interests and achieve a set of principles such as justice, transparency and equality.

Governance begins its practices by building an integrated governance system identifying behaviors that serve their interests, and urging leaders to make ethical decisions. Governance practices depend on formal controls such as legislation, regulations, and laws, which makes governments and organizations employ this role to produce an effective pattern that achieves good results and excludes bad patterns[3].

Second - Governance in the field of accounting:

In the realm of accounting, governance pertains to safeguarding investors' capital, ensuring reasonable returns, and thwarting the misuse of funds for personal gain by managers. This calls for the adoption of protocols, checks, and accounting norms to enhance transparency and broaden the reach of financial data, statements, and executive perks. The objective is to adhere the globally acknowledged accounting standards and preserve financial soundness and preclude hazardous investments[4].

Third- The legal concept of governance from the international and Algerian perspective:

The term governance from the legal perspective generally refers to the legislative framework and legal rules that protect the interests of parties related to the institution or company, and law scholars address it as “an integrated framework of legal rules governing the management of the affairs of projects and organizations in the face of the beneficial parties.” Therefore, legal professionals are concerned with the legal rules and procedural aspects that provide the requirements for maintaining the corporate entity of companies and providing guarantees of protection for the rights of all relevant parties or beneficiaries of the company’s establishment, survival, and growth[5].

- Governance from an international perspective:

a- According to the Organization for Economic Co-operation and Development (OECD): It is the system that controls and directs the company’s work, as it distributes and describes the rights and duties among the various parties of the Board of Directors, stakeholders, and sets the necessary procedures and rules for making decisions. It also sets the goals and strategies necessary to achieve them and the basis for follow-up to evaluate and monitor performance[6].

b- The Center for International Private Enterprise (CIPE): CIPE referred to good governance as “the framework within which the company exercises its existence, and governance focuses on the relationships between employees, members of the board of directors, and shareholders.” it is defined as “a set of mechanisms, procedures, laws, systems, and decisions that guarantee discipline, transparency, and fairness[7].

-Governance from the perspective of Algerian legislation

a- Governance is defined in Article 02, Paragraph 08 of the city’s directive law as “Good governance is the focus on the citizen concerns and works in the public interest within the framework of transparency[8].”

b- Charter for Good Governance: A draft charter for the governance of Algerian institutions was written on March 11, 2009, to give Algerian institutions a simple guiding tool that allows them to understand the basic principles of governance of Algerian institutions. However, the charter did not address the definition of governance but rather worked to enshrine its principles[9].

Corporate governance can be generally defined from a legal perspective as “the legislative framework and legal rules that protect the interests of parties related to the institution or company.” it has also been defined as “an integrated framework of legal rules governing the management of the affairs of projects and organizations in the face of the benefiting parties”[10].

Therefore, governance rules aim to achieve quality and excellence in performance by activating management’s actions concerning exploiting the economic resources available to it, in a way that achieves the best possible benefits for all stakeholders and society. Hence, it can be said that corporate governance is a tool that enables the company’s management to achieve its long-term objectives in a way that protects the rights of stakeholders; deepening the role of oversight and monitoring performance in companies. Some of its characteristics are as follows:

-It is concerned with setting laws and standards that ensure control.

-It is concerned with the group of relationships between the board of directors, owners, shareholders, and stakeholders.

- It seeks to preserve the rights of shareholders and take care of their interests fairly[11].

2-Principles and aspects of governance:

Governance aims to achieve several goals, the most important of which are: transparency - accountability - responsibility - and equality.

First:

Transparency: is considered one of the modern and advanced concepts in governance, which conscious management must adopt because of its importance to the company and the parties concerned with it. Transparency means openness, abandoning ambiguity, secrecy, and deception, and making everything verifiable and with a sound vision.

Aspects of governance in the principle of transparency and other principles: The importance of the principle of transparency is derived from its influence on all stages of the procedures for concluding contracts in the company or the organization in general. To determine the availability of the transparency factor, it is necessary to search for the availability of information among dealers and shareholders[12].

Second: Accountability:

It is the right of shareholders to hold executive management accountable for its performance, and this is a right guaranteed by the law and governance systems. Accountability also guarantees the responsibility of executive management before the Board of Directors and the responsibility of the Board before shareholders.

Third: Responsibility:

Governance systems aim to raise the sense of responsibility among both parts of management (the Board of Directors and Executive Management) and for each member of the Board of Directors to act with a high degree of professional ethics.

The responsibility also recognizes the legal rights of shareholders and encourages cooperation between the company and shareholders in various matters, including profit, providing job opportunities, and achieving economic sustainability.

Fourth: Equality:

It means equality between small and large investors. It also means equality between local and foreign investors alike. For example, the owner of one share possesses the same rights as the owner of one million shares, such as voting and participation in the general assembly, holding the board of directors accountable, a share of the dividend distribution, etc[13].

B)Uses of governance in the Algerian and comparative legislation:

The Arab countries, including Jordan and Algeria, are new to applying sound principles of corporate governance. However, despite the efforts made, there is still a lot to be done. Comparative observation of the current corporate governance practices in Jordan and Algeria in general with the practices, standards and principles applied internationally reveals the required development. These developments are as follows:

1-Corporate governance in Jordan:

First: The historical development of corporate governance in Jordan.

Corporate governance entered the Jordanian financial market in 2005, and the general and broad framework for it was established to preserve the rights of shareholders, activate the principle of justice among them, highlight the role of stakeholders, ensure disclosure and transparency, and emphasize the responsibility of the Board of Directors and its role in protecting shareholders. The percentage of companies applying corporate governance increased from 5% in 2007 to 25% in 2009. This is according to data disclosed at the Second Forum for Corporate Governance and Social Responsibility for Companies in the Middle East and North Africa, which was held in the Jordanian capital, Amman, in 2009. Jordan sought, through this system to raise the efficiency of the economy and address problems resulting from malpractices by company management, internal or external auditors, or interference by boards of directors that hinder their work.

Initially, in Jordan, following corporate governance rules was optional. The Corporate Governance Manual requires companies to explain non-compliance. However, legal regulations were binding and had to be adhered to. Over time, all rules had to be followed by companies. Certain Jordanian laws have incorporated provisions related to corporate governance such as:

-Companies Law No. (22) issued in 1997 and its amendments.

-Securities Law No. (76) issued in 2002.

- Banking Law No. (28) issued in 2000 and others[14].

Second: Content of the Jordanian Corporate Governance Guide:

In 2007, the Jordan Securities Commission issued a draft of a corporate governance rules guide that includes a set of general, peremptory and indicative rules. General and peremptory rules are mandatory rules that companies must adhere to. As for the guiding rules, they will be applied through the method of compliance or interpretation of non-compliance. This guide contains five sections:

-The first section was devoted to definitions, where terms related to corporate governance were defined, such as independent directors, related party transactions, cumulative voting, interested parties, committees, and others.

- Section Two: Board of the joint-stock company directors. In this section the Board of Directors was defined, how it is elected, and its duration. This section contained three sub-sections. The first deals with the topic of the tasks and responsibilities of the Board of Directors, while the second deals with the topic of the committees formed by the Board of Directors, such as the Audit Committee and the Nomination and Remuneration Committee in addition to the composition and powers of each one of them. The third deals with the topic of Board of Directors meetings and how to vote on its decisions.

- Section three was devoted to the company's general assembly meeting, in which the method of holding this meeting and the agenda were explained.

- Section Four was devoted to the rights of shareholders. This section contains two sub-sections. The first included the general rights of shareholders, including minority rights. The second deals with the powers of the General Assembly, such as electing members of the Board of Directors, electing the external auditor, and dismissing any member of the Board of Directors.

- Section Five is considered one of the most important sections as it is devoted to disclosure and transparency. It deals with the disclosure policy adopted in the company and how to prepare financial reports. The section contains two sub-sections. The first includes the topic of the audit committee through its definition, composition, and meetings, while the second deals with the tasks of the audit committee and its responsibilities. Accordingly, Jordan pays attention to the issue of corporate governance because of its importance in enhancing confidence in the practices of boards of directors on the part of shareholders and emphasizing the role of the board of directors, internal and external auditors, the audit committee, and the financial markets[15].

2- Presentation of the content of the Algerian Enterprise Good Governance Charter:

Algerian business associations and federations took the initiative to discover ways to encourage good governance in the business community to attract foreign direct investment. To lead this process, stakeholders in the public and private sectors in 2007 established a corporate governance working group. The institutions are working alongside the Global Corporate Governance Forum (GCGF) and the International Finance Corporation (IFC) to develop the Algerian corporate governance framework.

On March 11, 2009, a national conference was held where CARE and the National Committee for Corporate Governance in Algeria announced the release of the Algerian Corporate Governance Guide. This guide was developed with the assistance of the Global Corporate Governance Forum (GCGF) and the International Finance Corporation (IFC) to establish the Algerian corporate governance framework. The guide comprises two parts and appendices.

-The first part explains the motives that led to good corporate governance becoming necessary in Algeria, and it draws connections with the problems of Algerian enterprises, especially private small and medium enterprises.

-The second part addresses the basic standards upon which the good governance of institutions is based. On the one hand, it presents the relationships between the institution's regulatory bodies (the General Assembly, the Board of Directors, and the Executive Directorate), and on the other hand, the institution's relationships with other partner parties, banks and financial institutions, suppliers, etc. In addition to the quality of information dissemination and methods of transferring ownership[16].

This charter concludes with appendices that essentially collect practical tools and advice that institutions can resort to respond to a clear and precise concern, such as a checklist for practicing self-evaluation of institution management, a multi-faceted, panoramic view of Algerian institutions subject to commercial law, conflicts of interest in the institution, etc. The charter also identified four principles for the good governance of institutions, represented as follows:

Privileges and associated obligations:

- **Fairness**: Distributing rights and duties between actors in a fair manner
- **Transparency**: The rights, duties, powers and responsibilities should be clear to everyone.
- **Responsibility**: The responsibility of any individual is defined with precise goals.
- **Dependency**: Each actor is responsible to the other in the exercise of the responsibilities assigned to it[17].

II: Artificial intelligence, its theoretical basis, and its applications in the field of corporate governance:

The relationship between humans and the various components and systems that surround us depends on how effectively we can use them to simplify our daily tasks. One such system is artificial intelligence (AI), which is one of the greatest achievements of the human mind in recent times.

AI has now entered several new fields, including corporate governance, raising many questions about how it can be used to manage companies. Given the technical nature of AI and the legal implications of corporate governance, it is essential to study this topic in detail.

A)The Theoretical Basis of Artificial Intelligence:

1-What is artificial intelligence:

First: Determination of concepts:

a-Definition of artificial intelligence linguistically:

The term human intelligence means the ability to analyze, synthesize, distinguish and choose, and to adapt to different situations, or its ability to understand, deduce, analyze and distinguish by the power, nature and intelligence of the mind[18].

The Oxford English Dictionary defines artificial intelligence as “the theory and development of computer systems capable of performing tasks that usually require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages[19].”

b-The jurisprudential definition of artificial intelligence:

The definitions of artificial intelligence varied in an attempt to reach a definition that reflects its content and entity. These definitions focused on defining artificial intelligence as a field of research, independent advanced systems, or in comparison with human intelligence, or by describing Artificial intelligence techniques and applications.

“Artificial intelligence is the theory and development of computer systems capable of performing tasks that require human intelligence. Examples of these tasks include visual perception, speech recognition, decision making, and learning under uncertainty[20].”

Artificial intelligence is defined as “the ability of a machine to perform the cognitive functions that we associate with human minds, such as perception, reasoning, learning, interaction with the environment, problem-solving, and even creativity[21].”

It should be noted that the most important feature of artificial intelligence is the reduction and elimination of routine work. It also helps in reducing lower-level jobs, so its applications have become more widespread with the proliferation of many independent software organizations available to deal with growing technologies. The benefits of artificial intelligence systems are clear for digital consumers in many industries and many businesses, such as customer service practices carried out by chatbots[22].

c-**The legal definition of artificial intelligence**:

Most Arab legislation has not established a definition for artificial intelligence. Referring to some legislation that has established a definition for artificial intelligence, it is noted that the Bahraini legislator has defined the artificial intelligence system. In the Electronic Transactions Law No. 28 of 2002, Bahrain define it as an electronic agent, a computer program or any other electronic means used to perform an action or to respond to electronic records or actions without review or intervention by any individual at the time of the action or response. However, artificial intelligence is a more comprehensive term than an electronic agent, and there is no place for an artificial intelligence disk with an electronic agent only, as stated in the definition contained in the aforementioned law.

The United Nations Commission on International Trade Law issued on the legal aspects of smart contracts and artificial intelligence several definitions, but none of them has gained universal acceptance. Artificial intelligence, in general, is the science of devising systems capable of solving problems and performing functions by simulating mental processes. Artificial intelligence can be taught how to solve a problem, but it is also capable of studying the problem and knowing how to solve it on its own without human intervention. Different systems can reach different levels of autonomy and can act independently, but it is not possible in this regard, to predict the operation of these systems and their results as they act like “black boxes”[23].

Second: Characteristics of artificial intelligence:

Artificial intelligence (AI) has many characteristics that make it an effective investment in various fields. It can be applied to devices and machines that enable them to plan and analyze problems using logic, recognize sounds and speech, and move objects. AI can also understand and analyze inputs to provide outputs that meet the user’s needs with high efficiency. It enables continuous learning, as it is an automated and self-paced process without being subject to monitoring and supervision. It can process huge amounts of information, notice similar patterns in data, and analyze them more effectively than human brains. Moreover, AI can find solutions to unfamiliar problems using its cognitive abilities[24].

Regarding the field of trade, those in charge of managing and developing the field of commercial companies or institutions believe in the necessity of using artificial intelligence techniques to develop and move forward towards achieving transparency based on control, disclosure, accountability, social responsibility, and environmental preservation, which leads to supporting confidence among those coming to invest in companies. Commercial and economic institutions supported by modern artificial intelligence technologies achieve the desired development, profitability and governance [25].

2-Objectives and Importance:

A survey conducted in 2017 among more than (3,000) CEOs, managers, and analysts around the world indicates that (60%) of them stress the importance of having an artificial intelligence strategy because it helps to enable... The actual transformation of the facility when using artificial intelligence techniques, and access to more returns.

Value, and improving its performance and productivity by helping it understand the facility’s data and benefit from it in automating operations or main tasks, developing products, or launching new products, and the most important administrative and technical advantages it provides can be summarized The strategy for the facility is as follows:

- Setting strategic goals: Determining the desired goals of using artificial intelligence that are compatible with the facility’s vision and goals, and which take into account the facility’s needs and the challenges it faces[26].

Dynamic pricing is a method used by business leaders to improve their prices to attract more customers and increase profits. While traditional dynamic pricing algorithms use historical data to estimate the best prices, modern dynamic pricing algorithms make use of more data, as well as machine learning capabilities to; And artificial intelligence to better predict market trends and improve prices according to the dynamic pricing algorithm, which is the set of inputs and instructions behind any dynamic pricing strategy. Dynamic pricing algorithms input data about a product or service, and output what would be the optimal price for it under certain conditions in order to maximize a company's profits while retaining customers. Dynamic pricing algorithms take advantage of historical data about: product prices, production costs, market trends, and customer purchasing behavior[27].

B)The role of artificial intelligence in applying governance principles:

Relying on artificial intelligence techniques in the field of corporate governance is the need to surround it with a fence of security guarantees to protect electronic data related to the company. Regulating data protection and access to it is extremely important and of double importance. On the one hand, it ensures the ability of companies to protect sensitive data necessary for making strategic decisions.

Resorting to artificial intelligence within the scope of governance application does not affect the basic principles of the board of directors' practices, but it provides board members with additional tools to support their decision-making, as the board member remains in the position of authority. Governance through artificial intelligence consecrates two important principles, disclosure and transparency, which are the pillars a company's board is committed to. These two principles apply to stakeholders and their right to fair treatment, which can be directly implemented and taken into account through artificial intelligence. The company's leaders' conviction of the role of artificial intelligence in implementing governance rules is a good management tool[28].

1-Artificial intelligence Oversight over companies' commitment to governance principles:

First: Defining the concept of Oversight

a- **Oversight linguistically**: A control is the one who watches over something or preserves it. In Arabic, we find that one of the names of Allah is the "Watchful" and the "Preserver". "Watch Mohamed among his family" which means, guard him among them." also, we find this concept in the prophet saying, "There is no prophet but that he was given seven noble watchmen," meaning guards who would be with him[29].

b- **Oversight according to the Sharia law**: Allah Almighty said, "With regard to a believer, they respect not the ties, either of kinship or covenant! It is they who are the transgressors[30]", meaning they do not preserve any kinship or covenant with a believer.

c- **Oversight in jurisprudence**: Jurisprudence has tended in its definition of oversight into three directions. The first direction defines it as the decisions that are issued or the penalties that would achieve a clear goal or set of goals. This trend divided supervision into:

- **Financial Oversight**: Its purpose is to preserve the company's funds and financial position.

- **Performance Oversight**: This is the means of ensuring that goals are achieved and that there is no deviation from the company's plans.

- **Adequacy Oversight**: This means verifying opportunities to improve performance rates and achieve the company's desired goals.

The second trend sees that what is relied upon in the oversight process - mainly - are the agencies that undertake oversight, review, examination, follow-up, gathering information, and analyzing data and results. As for the third trend, it believes that oversight is primarily based on the availability of a database and information that can be used to monitor activity and review business results.

A review of the three trends shows the complementarity and correlation between them. Therefore, oversight is the authority to supervise, review and examine to determine how work is progressing within the company, and to confirm the correct use of its funds for the purposes allocated to it. Oversight is a fundamental factor and an essential element in achieving not only effective management but also achieving sustainable rational management that reaches the purposes and interests of the company, shareholders and investors. Such a result would accomplish clear growth in the national and global economy[31].

Second: Artificial intelligence and its role in monitoring the application of governance principles:

The reliance on artificial intelligence technologies in the field of corporate governance is the need to ensure strong cyber security measures to protect electronic data related to the company. It is crucial to regulate data protection and access to it. On one hand, this ensures that companies can safeguard sensitive data that is needed to make informed strategic decisions. On the other hand, companies often require access to publicly available data to consider all relevant data points and improve their use of artificial intelligence.

This dual challenge poses significant risks for companies. Since the entire decision-making process lies at the board level, companies that use artificial intelligence must have a secure system in place to protect their data while meeting the requirements of the company's management and its ability to manage and direct[32].

Cybersecurity is also more demanding in developed countries , that have large technological bases which enable them to use artificial intelligence completely alone in the course of their affairs. However, the use of AI decreases in developing countries where the use of artificial intelligence is almost non-existent. Hence, developed countries need a secure system that is not vulnerable to hacking or detection of confidential data. In any given case, the extent of companies' safe usage of artificial intelligence varies. The problem of using artificial intelligence in corporate governance increases if the used systems are diverse and differ between the parent company and its branches which results in heterogeneity as market rules are still attached to nation-states. Companies involved in international business are exposed to a number of regulatory regimes that take very different positions on issues related to AI.

Boards of directors must understand the opportunities and risks to ensure that international data flows are maintained to allow the best possible decisions to be made. Based on the fact that governance is essentially based on accountability and review of decisions made, so the impact of artificial intelligence on the principle of accountability is clear and fundamental[33].

2-Artificial Intelligence, its theoretical Basis and its applications in the field of commercial companies:

Corporate governance is considered the backbone of the success of any organization or company, as it refers to the structures, policies and processes that ensure effective and transparent management of the company.

In the current digital era, artificial intelligence (AI) plays an increasingly important role in improving the performance of corporate governance.

Artificial intelligence also provides exceptional capabilities in analyzing and learning from data in an automated and rapid manner, which improves decision-making processes and guides companies towards excellence.

First: Using artificial intelligence for disclosure and transparency:

One of the most important roles that artificial intelligence plays in developing corporate governance is enhancing transparency, disclosure and accountability. Artificial intelligence can accurately analyze data and provide detailed reports on the company's performance and uses of resources. This enables the company's management to monitor performance and identify potential problems early, make more accurate decisions and optimize resource utilization.

In addition, AI improves strategic planning processes, and AI can analyze huge amounts of data and identify emerging trends and potential strategic opportunities. It also enables the company to make informed decisions based on accurate expectations for the future and a clearer vision of the goal it seeks to achieve[34].

Transparency in financial reporting increases investor awareness and confidence and is expected to reduce the cost of capital. The absence of indicators of financial reporting transparency, accountability, and responsibility is considered poor management.

Despite the benefits of greater financial reporting transparency, some companies do not prefer full transparency for several reasons, including the costs associated with collecting, processing and disclosing information, the benefits related to non-disclosure and the phenomenon of external influences. In such cases, strict disclosure regulations are undesirable, and companies will look for ways to avoid disclosure or at least reduce it[35]. Below we will discuss some concepts of disclosure and transparency of financial reports (1); and its measurement indicators (2); its importance (3).

a-Concepts about disclosure and transparency of financial reports:

***Disclosure**: linguistically, disclosure means eloquence and statement. It is said, an eloquent man has an eloquent speech, meaning a clear direct man, an eloquent man. It is said, “The morning became clear or the matter became clear,” meaning it became clear and began to appear[36]. Technically, disclosure is the company’s communication with the external factor through various means to reveal important information to investors, shareholders, the financial market, and others in a way that allows predicting the company's ability to make profits and pay its liabilities[37].

***Transparency of financial reports**: “Transparency of financial reports is the ability of information to be widely available, reliable, characterized with quality, and provided in a timely manner.” Transparency of financial reports is also defined as “the extent to which financial reports are able to disclose the basic information of the facility to users of these reports in an easy-to-understand manner[38]”. It is defined as “disseminating important and effective information simply and easily with purposeful analysis of the company’s activities and economy[39]”.

The transparency of financial reports plays a vital role in the ability to attract capital by comparing the level of transparency of the company's financial reports with the reports of other companies.

Artificial intelligence helps verify and disclose the efficiency of resource use; it helps provide accurate and objective assurances to stakeholders regarding the use of funds and increases confidence in financial reports. Thus building better relationships with internal and external parties. Also, it helps in verifying that workers’ facilities adopt modern approaches such as continuous improvement, digital sustainability, and innovative thinking[40].

b- Indicators for measuring the transparency of financial reports:

Financial reporting can be improved in several ways. Firstly, the quality and quantity of the information should be enhanced, with a focus on its quality. Secondly, it's important to commit to ethical conduct and professional rules to ensure integrity and ethics and build confidence in the system's outputs. Financial statements are not only for decision-makers but also for anyone interested in viewing them. To achieve these improvements, laws, legislation, and regulations consistent with international accounting standards should be enacted to control company performance within a compatible legislative framework. Additionally, creating a virtuous environment is crucial.

Accounting is a social science that affects and is affected by the surrounding environment. An appropriate and good environment perpetuates and grants continuity to the fittest. It is not enough for an accountant to be good and honest in an environment full of financial corruption that quickly renders him unable to perform well or keep up with it if he does not fall into it. However, the appropriate environment strengthens him and improves his performance[41].

c-The importance of transparency in financial reports:

- What the system of transparency in disclosure achieves: Adherence to the rules of transparency in disclosure improves stock performance, maximizes profitability, and generates confidence among investors and shareholders.

-Transparency in disclosure bridges the two gaps: the first gap between available disclosure on the one hand and full disclosure, which is very close to ideal disclosure, and the second gap between the preparers of financial statements and reports on the one hand and their users on the other hand. One gap remains, which is outside disclosure among the beneficiaries of accounting information caused by the disparity. In their abilities, experiences, knowledge and qualifications to benefit from them, they distinguish themselves from each other.

-Transparency focuses attention on the ethical values and rules of professional conduct among preparers and users of accounting information. It increases information and clarification, which leads to improved disclosure. Such conduct increases awareness and education about transparency.

Most writers, researchers, and professionals focus on the transparency of financial data and information and consider it the foundation of the entire disclosure process[42].

-Applications of disclosure in Algerian commercial law: The subject of disclosure is of great importance to the Algerian commercial legislator, and specifically in the provisions regulating commercial companies, there are many legal texts that guarantee this, starting with the establishment of a joint-stock company by publicly resorting to savings, for the founders to publish an advertisement for subscription according to paragraph 2 of Article 595 of Algerian commercial law[43] , which referred to Executive Decree No. 95/438, which includes the application of the provisions of the Commercial Law relating to joint-stock companies and conglomerates, where it stipulates in its second article: " The announcement stipulated in Article 595, the second paragraph thereof, shall be published in the Official Bulletin of Legal Announcements before commencing the subscription operations and before any procedure in the month." The same article also specifies the data that the company must disclose, which includes the name of the company, its form, the subscribed capital, and the company's headquarters, in addition to its subject matter. And other mandatory data, which is an affirmation of the obligation to adhere to disclosure, which is considered a prominent principle of corporate governance in commercial companies in particular.

Second: The company's board of directors use of artificial intelligence:

The use of artificial intelligence in the field of corporate governance will not affect the extent of powers and obligations stipulated by the law for members of the board of directors or influence the actions taken. The goal of using AI as it is the means that supports decision-making. The powers of board directors are not affected by the method used in management as long as they adhere to the legislative procedures and texts that help implement the principles of corporate governance. Hence, artificial intelligence intervention is limited to guidance through the use of intelligence tools to deal with market data and operational environments and enable the board of directors to make decisions for the company[44].

Artificial intelligence increases the degree of information transparency that the board of directors uses to issue timely decisions. Also, companies resort to it for predicting and anticipating the problems they may encounter in the future. Furthermore, AI helps in taking all measures more efficiently and effectively.

It is noteworthy that all of the above procedures are subject to digital transformation and display through the company's website in a way that enables the board of directors to quickly and accurately review all developments in the company, including facts and decisions.

This can be easily done by linking the company's website - via artificial intelligence systems, to the official authorities' websites such as Trade Register Management or any ministry or the judiciary in some comparative countries.

In doing so, maximum effectiveness and speed in taking any measures can be reached. This link also ensures the immediate and urgent nature of the official authorities on everything that develops within the company, to take appropriate legal action quickly[45].

As for Algeria, the legislator granted the National Center for Commercial Registry to manage and monitor the electronic registration process through an electronic portal **"Sijil.com"** dedicated to establishing institutions. This is in accordance with Law 18/08[46] amending and supplementing Law 04/08 relating to the conditions for practicing commercial activities and the text of paragraphs 2 and 3 of Article 5 bis 1 thereof.

Regarding legal publication, the Algerian legislator has obligated commercial companies and merchants to publish a summary of what has been registered in the commercial registry in the official bulletin of legal announcements, which the National Center for Commercial Registry is responsible for preparing and publishing. Article Five of Executive Decree 16/136[47] stipulates that legal announcements can be included electronically. The electronic portal "**Sijil.com**" can Electronic access to the official bulletin for legal announcements and a group of free services, including access to summary information about the financial status of companies and naming the activity to be undertaken after creating a special account on the portal. Regarding paid services, they are related to informing others of the detailed information of the company and its social accounts, in addition to requesting A copy of the files and the database CD.

The amended and supplemented Law 04/08 stipulates a set of penalties as a penalty for violating its provisions to ensure the accuracy of the information and data included in the commercial register to protect third parties dealing with the company.

In general, commercial companies of all types are companies of persons, financial companies, or mixed companies, all of which are concerned with applying governance principles.

However, practical reality proves to us that joint stock companies are more concerned than other companies with applying governance rules, and this is due to their nature in that they include a large number of shareholders. The issue of protection arises. Their rights and the rights of all creditors, from official bodies such as banks or bondholders, to the registration process on the transferable securities exchange and the resulting obligations of the company[48].

There is another additional procedure regarding the obligation to disclose when requesting the company to enter the stock exchange, after accepting the listing of the transferred values of the commercial company on the stock exchange, the issuing company moves to a second stage whereby it becomes accredited on the stock exchange and is obligated to disclose a set of information that shows the general situation of the company, along with showing its business number and activities.

As well as its financial position, this information is of great importance, whether for savers or shareholders who have previously made a decision to invest in this company. In parallel with these procedures, the company remains obligated to make periodic disclosure and occasional disclosure of all emergency incidents to which it is exposed.

These two disclosures fall within the subsequent procedures for listing the company on the stock exchange, which was confirmed by Regulation 02/2000[49]. From here, the stock exchange management and the committee for regulating and monitoring stock exchange operations can rely on techniques. Artificial intelligence through an integrated digital communication system that connects them with the listed companies, especially if its system communicates with the system of the National Center for Commercial Registry, so the stock exchange management can view and evaluate the conditions of its traded companies in a way that allows this system and all investors to periodically review the information related to the values transferred to the listed company.

CONCLUSION

The study discovered that governance is crucial for the success of commercial companies, as it pertains to the structures, policies, and procedures that ensure efficient and transparent management. In today's digital era, artificial intelligence (AI) is playing an increasingly significant role in improving corporate governance performance. AI provides exceptional capabilities to analyze and learn from data in an automated and rapid manner, which helps to enhance decision processes and guide the company towards excellence.

One of the primary roles that AI plays in developing corporate governance is to enhance transparency and accountability, analyze data accurately, and provide detailed reports on the company's performance and resource utilization. It enables the management body to monitor performance, identify potential problems early on, make more accurate decisions, and improve resource utilization.

As technology continues to advance and artificial intelligence becomes increasingly sophisticated, it has become crucial to incorporate AI into governance and corporate reporting to guarantee compliance with regulations. Intelligent systems can assist organizations in ensuring that their activities align with relevant legislation and detect any potential abuses or violations.

Furthermore, AI can continuously analyze customer data and interactions to offer creative recommendations and solutions that enhance services and meet customer needs. Simultaneously, it can bolster data security and protection by identifying security threats and hacking attempts early on and providing robust preventive measures and security protection.

Artificial intelligence contributes effectively to eliminating the lack of transparency and asymmetry of information, which directly affects the accuracy and integrity of the decisions made for the company and the users of the reports. AI increases the level of transparency of the financial information provided to users, financial analysts and investors due to the ease of comparing reports for different companies in different industries. However, most studies agreed that there are many criticisms of digital transformation techniques in general and artificial intelligence systems in particular, which has led to many difficulties in application. The most important difficulties are:

-Difficulty in dealing with new technologies, lack of necessary skills, and high cost of applying them.

- The necessity of ensuring the privacy and security of data used in artificial intelligence analyses.

-The success of AI in analyzing data requires continuous cooperation between experts, managers, and relevant teams within companies.

-Ethically, AI products and services may cause financial and reputational damage. Customers and stakeholders may not accept the adoption of AI initiatives by organizations or companies, which will delay the company from competitors if it does not invest in the right AI systems.

Artificial intelligence represents an effective and powerful tool for improving transparency and accountability, enhancing strategic planning processes, improving user experience, and enhancing security and protection. By using it intelligently and responsibly, artificial intelligence will contribute to achieving excellence and superiority for companies in the era of digital transformation and the digital economy.

Citations:

[1] Also called automation and sometimes “mechanization,” it is a relatively recent term that gives a broad range of technologies that require little human intervention. This includes the automation of processes such as manufacturing, information technology, marketing, and business. See Sefat, Salama, Abu Qura, Khalil, (November 27/28, 2018), “Damages of Robots and Artificial Intelligence Technologies - A New Challenge to the Current Civil Liability Law,” International Forum entitled: “Artificial Intelligence, a New Challenge to the Law,” University of Algiers, Algeria, p. 15.

[2] Al-Khudairi, Mohsen Ahmed, 2005, Corporate Governance, first edition, Arab Nile Group, Egypt, p. 7.

[3] Suleiman, Muhammad Mustafa, 2009, The role of corporate governance in combating administrative corruption, “A Comparative Study”, El Dar El Gamaya, Alexandria, p. 25.

[4] Ahmed Salem, Mohamed, 2014, Corporate Governance and its Role in Attracting Foreign Investments and Achieving Sustainable Development with Application to Emerging Economies (Egypt and the Arab Gulf Countries), “Economic Legal Study,” Dar Al Nahda Al Arabiya, Cairo, p. 9.

[5] Ghadban, Laila, 2022, Principles of Corporate Governance - Algeria Case Study, Journal of Legal and Economic Studies, Volume: 05, Issue: 02, Algeria, p. 283.

[6] Salehi, Mohamed Yazid, Ben Barika, Abdel Wahab, without a year, The reality of corporate governance in Algeria, “A field study on institutions listed on the Algerian Stock Exchange”, Mohamed Khaydir University of Biskra, Algeria, p. 04. Link https://archives.univ-biskra.dz: on 10/15/2023, at 18.45.

[7] Abdel Wahab, Nasr Ali, Shehata, Al-Sayyid Shehata, 2006/2007, Auditing and Corporate Governance in the Contemporary Arab and International Business Environment, El Dar Gamaya, Egypt, p. 17.

[8] Law No. 06/06, dated February 20, 2006, including the directive law of the city, Official Journal of the Algerian Republic, No. 15, dated March 12, 2006.

[9] Charter of Good Governance for Small and Medium Enterprises, 2009, Publications of the Ministry of Small and Medium Enterprises, Algeria, p. 23.

[10] Boulnah, Rima, 2022, The role of commercial corporate governance in the sustainability of emerging, small and medium enterprises, Journal of Knowledge Issues, Volume 02, Issue 03, Algeria, p. s. 101 -116,.

[11] Amamra, Yasmina, Zarei, Rabab, 2018, An approach between the principles of corporate governance according to the Organization for Economic Cooperation and Development and the Good Governance Charter for Algerian companies, Journal of Economy, Finance and Business, Volume 3, Issue 1, Hamma Lakhdar El Oued University, Algeria, p. 119. -132.

[12] SCHULTZ, Patrick, 2002, Elements of public procurement law, L.G.D.J, 2nd editions France, p.p62-67.

[13] Governance Basics, Terms and Concepts, 2021, Abu Dhabi, governance Center's series of educational brochures, at the link: https://arabgovernance.net/wp-content/uploads/2021. On 10/21/2023 at 00:00

[14] Jordan News Agency from the website jo.gov.petra.ww, accessed on 04/11/2023 at 12:05.

[15] Sharati, Samira, 2019, An evaluation study of corporate governance frameworks in Algeria compared to Jordan, Journal of Scientific Research and Studies, Volume 13, Issue 01, Algeria, pp. 69-92.

[16] Charter of Good Governance, op. cit.

[17] Ali Abdel Samad, Omar, 2013, The corporate governance framework in Algeria - a comparative study with Egypt -, Al-Bahith Magazine, Volume 12, Issue 12, Algeria, pp. 39-40.

[18] Al Wasit Dictionary, 2011, Arabic Language Academy in Cairo, Egypt, p. 79; Dictionary of the Contemporary Arabic Language, 2008, Alam al-Kutub, Cairo, Egypt, p. 37.

[19] Michel, George, 2023, The role of artificial intelligence in corporate governance, International Journal of Jurisprudence, Judiciary and Legislation, Volume 4, Issue 2, Egypt, pp. 423-397.

[20] Allaq, Hisham, Duraid, Hanan, 2022, Applications of artificial intelligence in financial institutions, an introduction to activating financial inclusion, Journal of Economics and Sustainable Development (1), Algeria, pp. 705-725.

[21]Qujil, Muhammad, Qarziz, Nabila, 2021, Uses of technology as a mechanism in the Islamic banking industry. Al-Mayadeen Economic Journal (1), University of Algiers 3, Algeria, p. p. 247-266.

[22]Yahya, Yassin, 2021, Four huge technical transformations in banking services during 2021, Cairo, Financial Technology Center of the Central Bank of Egypt, Egypt, p. 726.

[23] Legal Aspects of Smart Contracts and Artificial Intelligence, July 2018, Working Paper to the United Nations Commission on International Trade Law, 13th, Fifty-First Session, New York. P. 5 et seq., at the link: https://ucitral.un.org>commission. On 12/12/2023 at 01:16.

[24]Farouk Al-Halawani, Faten, Omar Ashmil, Sondos, 2022, The effectiveness of artificial intelligence to enrich the creative design of cartoon characters, International Journal of Artificial Intelligence in Education and Training, Egypt, Volume 2, Issue 1, p. pp. 1-15.

[25]Boulnah, Rima, 2022, The role of commercial corporate governance in the sustainability of emerging, small and medium enterprises, Journal of Knowledge Issues, Volume 02, Issue 03, Algeria, p.p. 101 -116.

[26] A report issued by the Saudi Data and Artificial Intelligence Authority on 04/14/2024 at 18:59 on the link https://sdaia.sa.gov.

[27] Hassan Bouzian, The use of artificial intelligence in marketing, examples of some international brands, Journal of Economics, Management and Commercial Sciences - University of M'sila - Volume: 16, Issue 01, 2023, p.p. 29.16.

[28] Ibn Ajraf Al-Shammari, Mishaan Hatem, May 2023, The impact of artificial intelligence technologies on corporate governance in the Saudi system, Al-Andalus Journal of Humanities and Social Sciences, Volume 10, Issue 73, Sana'a, pp. 228-262.

[29]Ibn Hammad Al-Jawhari, Al-Farabi Abu Nasr Ismail, AH, edited by: Ahmed Abdel Ghafour, Attar, 1987, fourth edition, Dar Al-Ilm Lil-Malayin - Beirut, Quoted by Ibn Ajraf Al-Shammari, Mishaan Hatem, previous reference, p. 24.

[30] Surat Al-Tawbah, verse 10.

[31]El-seid Adel Abdel Shafi Ammar, Mona, op. cit., p. 23.

[32] Mohamed Hassan, Youssef, 2007, Governance determinants and standards regarding the pattern of its application in Egypt, published by the National Investment Bank, Cairo, Egypt, p. 4.

[33] Ibn Ajraf Al-Shammari, Mishaan Hatem, the impact of artificial intelligence techniques on corporate governance in the Saudi system, op. cit., p. 24.

[34] Mohamed Abdel Latif, Reham, 2022, The extent to which the role of the auditor is affected by artificial intelligence in the audit process, "A Field Study," Alexandria Journal of Accounting Research, Accounting and Commercial Department, Volume 6, Issue 3, Alexandria University, Egypt, p. p. 431-450.

[35] Hafez Al-Qadi, Karim Muhammad, 2023, The impact of applying artificial intelligence systems techniques on the transparency of financial reports in light of contemporary professional publications: an applied study, Scientific Journal for Financial and Commercial Studies and Research, Volume 4, Issue 2, Part 2, Damietta University, Egypt, p. p. 1007-1046.

[36] Al-Wajeez Dictionary, Arabic Language Academy, Section: Arabic Language Dictionaries and Dictionaries, December 1998, Publisher: Arabic Language Academy, Cairo, p. 369.

[37] Executive Decree No. 95-438 of December 23, 1995 includes the application of the provisions of the Commercial Code relating to joint-stock companies and conglomerates, Official Journal No. 80 of 1995. It relates to the procedures for publishing and advertising financial companies in Algerian law.

[38] Ibn Ajraf Al-Shammari, Mishaan Hatem, op. cit, p. 23.

[39] Ibid., p. 24.

[40] Kharkhash, Jamila, Belajouez, Hussein, 2015, The role of internal control in activating corporate governance in Algerian commercial banks, Journal of Law and Human Sciences - Economic Studies, Volume 9, Issue 3, Ouargla, Algeria, p. pp. 215-231.

[41] Douak, Samira, Farhat, Abbas, 2019, Transparency and disclosure to achieve quality accounting information, Journal of Administrative and Financial Sciences, Volume 3, Issue 1, Algeria, pp. 11-27.

[42]Ibid., p. 17.

[43] Order No. 75/59 dated September 26, 1975 includes the Commercial Code, c. R. No. 101 of December 19, 1975, amended and supplemented.

[44] Al-Ghoul, Rasha, December 2021, The impact of the characteristics of artificial intelligence technologies on solving electronic external audit problems: (a field study), Scientific Journal of Financial and Administrative Studies and Research, Volume 12, Issue 2. Faculty of Commerce, Sadat City University, Egypt, p. p. 1-43.

[45]El-seid Adel Abdel Shafi Ammar, Mona, op. cit., p. 25.

[46] Law 18/08 dated June 10, 2018 amending and supplementing Law 04/08 dated August 4, 2004 relating to the conditions for practicing commercial activities, G.R. No. 32 dated May 3, 2018.

[47] Executive Decree 16/136 dated April 25, 2016 specifying the modalities and costs of including legal advertisements in the Official Bulletin of Legal Announcements G.R. No. 27 dated May 4, 2016.

[48] Legislative Decree No. 93-10 dated Dhu al-Hijjah 2, 1413 corresponding to May 23, 1993, relating to the Transferable Value Stock Exchange, amended and supplemented.

[49] Regulation No. 02-2000 of January 20, 2000, relating to information that must be published by institutions that 12 Their values are quoted on the stock exchange.

1- - Bibliography:

A-Sources :

1-The Holy Quran.

2-Sunnah.

-Dictionaries:

1-Al-Wajeez Dictionary, Arabic Language Academy, Section: Dictionaries of the Arabic Language, Publisher: Arabic Language Academy, Cairo,1998.

2-Al-Wasit Dictionary, Arabic Language Academy in Cairo, Egypt , 2011.

3-Dictionary of the Contemporary Arabic Language, World of Books, Cairo, Egypt , 2008.

-Laws, regulations and charters:

1-Law No. 06/06, dated February 20, 2006, including the directive law of the city, Official Journals of the Republic of Algeria, No. 15, dated March 12, 2006.

2-Executive Decree No. 95-438 of December 23, 1995, includes the application of the provisions of the Commercial Code relating to joint-stock companies and conglomerates, Official Journal No. 80 of 1995, It relates to the procedures for publishing and advertising financial companies in Algerian law.
3-Charter of Good Governance for Small and Medium Enterprises, published by the Ministry of Small and Medium Enterprises, Algeria, 2009.
4-Law 18/08 dated June 10, 2018 amending and supplementing Law 04/08 dated August 4, 2004 relating to the conditions for practicing commercial activities, G.R. No. 32 dated May 3, 2018.

5- Executive Decree 16/136 dated April 25, 2016 specifying the modalities and costs of including legal advertisements in the Official Bulletin of Legal Announcements G.R. No. 27 dated May 4, 2016.

6-Legislative Decree No. 93-10 dated Dhu al-Hijjah 2, 1413 corresponding to May 23, 1993, relating to the Transferable Value Stock Exchange, amended and supplemented.
7-Regulation No. 02-2000 of January 20, 2000, relating to information that must be published by institutions that 12 Their values are quoted on the stock exchange.

B-Books:
1-Ahmed Salem Mohamed, Corporate Governance and its Role in Attracting Foreign Investments and Achieving Sustainable Development. Case study of the Emerging Economies (Egypt and the Arab Gulf Countries), Dar Al Nahda Al Arabiya, Cairo , 2014.
2-Al-Khudairi Mohsen Ahmed, Corporate Governance, first edition, Arab Nile Group, Economic Legal Egypt , 2005.
3-Abdel Wahab Nasr Ali, Shehata, Al-Sayyid Shehata, Auditing and Corporate Governance in the Contemporary Arab and International Business Environment, University House, Egypt, 2006/2007.
4-Ibn Hammad Al-Jawhari, Al-Farabi Abu Nasr Ismail, edited by Ahmed Abdel Ghafour, Attar, fourth edition, Dar Al-Ilm by Al-Malini, Beirut, 1987.
5-Mohamed Hassan Youssef, Governance determinants and standards regarding the pattern of its application in Egypt, published by the National Investment Bank, Cairo, Egypt, 2007.
6-Suleiman Muhammad Mustafa, the Role of Corporate Governance in Combating Administrative Corruption, “Comparative Study”, El Dar El Gamaya, Alexandria. , 2009.
7-Yahya Yassin, Four huge technological transformations in banking services during 2021, Cairo, Financial Technology Center of the Central Bank of Egypt, Egypt , 2021.
8-Schultz Patrick, Elements of Public Procurement Law, L.G.D.J, 2nd editions, France, 2002.

C - Newspaper articles:
1-Al-Ghoul Rasha, The impact of the characteristics of artificial intelligence technologies on solving electronic external audit problems: (a field study), Scientific Journal of Financial and Administrative Studies and Research, Faculty of Commerce, Sadat City University, Egypt , Volume 12, Issue 2 December 2021.
2-Amamra Yasmina, Zarei Rabab, An approach between the principles of corporate governance according to the Organization for Economic Cooperation and Development and the Good Governance Charter for Algerian companies, Journal of Economy, Finance and Business, Hamma -Lakhdar El Oued University-Algeria, Volume 3, Issue 1, 2018.
3-Allaq Hisham, Duraid Hanan, Applications of artificial intelligence in financial institutions as an introduction to activating financial inclusion, Journal of Economics and Sustainable Development (1), University of the Valley, Algeria , 2022
4-Ali Abdel Samad Omar, The corporate governance framework in Algeria - a comparative study with Egypt - , Al-Bahith Magazine, Algeria,Volume 12, Issue 12 , 2013.
5-Boulnah Reema, The role of commercial corporate governance in the sustainability of emerging, small and medium enterprises, Journal of Knowledge Issues, Algeria, Volume 02, Issue 03 , 2022.
6-Douak Samira, Farhat Abbas, Transparency and disclosure to achieve quality accounting information, Journal of Administrative and Financial Sciences, Algeria , Volume 3, Issue 1, 2019.

7-Farouk Al-Halawani, Faten Omar Ashmil, Sondos, The effectiveness of artificial intelligence to enrich the creative design of cartoon characters, International Journal of Artificial Intelligence in Education and Training, Egypt, Volume 2, Issue 1, 2022.
8-Ghadban, Laila, Principles of Corporate Governance - Algeria Case Study, Journal of Legal and Economic Studies, Algeria ,Volume: 05, Issue: 02, 2022.
9-Hafez Al-Qadi, Karim Muhammad, the impact of applying artificial intelligence systems techniques on the transparency of financial reports in light of contemporary professional publications: an applied study, Scientific Journal of Financial and Commercial Studies and Research, Volume 4, Issue 2, Damietta University, , Egypt ,2023.
10-Ibn Ajraf Al-Shammari, Mishaan Hatem, , The impact of artificial intelligence technologies on corporate governance in the Saudi system, Al-Andalus Journal of Humanities and Social Sciences, Sana'a, Yemen ,Volume 10, Issue 73. May 2023.
11-KharkhashJamila, Balajous Hussein, The role of internal control in activating corporate governance in Algerian commercial banks, Journal of Law and Human Sciences - Economic Studies, Ouargla, Algeria. Volume 9, Issue 3, 2015.
12 -Mohamed Abdel, Latif Reham, The extent the role of the auditor is affected by artificial intelligence in the audit process, "A Field Study," Alexandria Journal of Accounting Research, Accounting and Commercial Department, Alexandria University, Egypt, Volume 6, Issue 3, 2022.
13-Michel George, The role of artificial intelligence in corporate governance, International Journal of Jurisprudence, Judiciary and Legislation, Egypt , Volume 4, Issue 2, 2023.
14-Qujil Muhammad, Qarziz, Nabila, Uses of technology as a mechanism in the Islamic banking industry. Al-Mayadeen Al-Eqtisadiah Journal (1), University of Algiers 3,Algeria , 2021.
15-Sharati Samira, an evaluation study of corporate governance frameworks in Algeria compared to Jordan, Journal of Scientific Research and Studies, Algeria, Volume 13, Issue 01 , 2019.

D - Seminar papers:

1-Sefat Salama, Abu Qura Khalil, "Damages of Robots and Artificial Intelligence Technologies - A New Challenge to the Current Civil Liability Law," International Forum entitled: "Artificial Intelligence, a New Challenge to the Law," University of Algiers, Algeria, November 27/28, 2018.
2-Legal Aspects of Smart Contracts and Artificial Intelligence, , Working Paper to the United Nations Commission on International Trade Law, 13th, Fifty-First Session, New York. July 2018.

E - Websites:

1-El-seid Adel Abdel Shafi Ammar Mona, Corporate Governance via Artificial Intelligence Technology, https://www.rowadalaamal.com on 11/07/2023.-The Legal Journal (a journal specializing in legal studies and research), Egypt, https://jlaw.journals.ekb.eg, on02/ 10/2023 .
2-Governance basics, terms and concepts, 2021, Abu Dhabi Governance Center's series of educational brochures, at the link: https://arabgovernance.net/wp- content/uploads/2021. on 21/10/2023.
3-Jordan News Agency from the website jo.gov.petra.ww, accessed on 04/11/2023.
4-Legal Aspects of Smart Contracts and Artificial Intelligence, July 2018, working paper submitted to the United Nations Commission on International Trade Law, 13, Fifty-first Session, New York, at the link: https://ucitral.un.org>commission, on 12/12/2023 .
5-Salehi, Mohamed Yazid, Ben Brika, Abdel Wahab, The reality of corporate governance in Algeria, "A field study on institutions listed on the Algerian Stock Exchange", Mohamed Kheidar University of Biskra, Algeria, p. 04. Link https://archives.univ-biskra.dz: on 15/10/2023 .
6-"The Importance of Artificial Intelligence in Business", https://fouprincipales.com, on 07/11/2023.