

## Exploring the Role of AI in Corporate Governance: Leveraging Potential for Productivity, Efficiency, and Competitive Advantage

<https://www.doi.org/10.56830/IJGMBS12202301>

Omar N Al-Boridi 

School of Engineering, RMIT University, Victoria, Australia

Correspondent Author Email: [omar.alboridi@rmit.edu.au](mailto:omar.alboridi@rmit.edu.au)

### Abstract:

The role of AI in corporate governance is crucial, as companies seek to leverage their potential to increase productivity and efficiency, and AI is increasingly being used to automate processes, provide insights, and improve decision-making, thereby enabling companies to gain a competitive advantage. The importance of this research lies in highlighting the role of AI in corporate governance, analyzing the impact of this role in enterprise business development based on application to corporate governance systems, as well as identifying the basic needs of governance-based companies to make the most of AI operations. Corporate governance is one of the key tools to counter the effects of recent economic changes, the global financial crisis, and the structural deficiencies of many companies, due to sound corporate oversight and oversight, as well as to sound corporate governance practices. expertise and skills, as well as dysfunctional financing structures the inability to generate sufficient internal cash flows to meet their accrued liabilities, and a lack of transparency.

**Keywords:** Artificial intelligence, corporate governance, technology, digital transformation.

### Introduction:

Every time the human mind reaches stunning progress, the human mind is surprised by another progress that leads the human mind to the point that anything is no longer impossible. The human mind is therefore trying to benefit from the technological technologies developed in various fields of life, including the legal aspect. This applies to the use of artificial intelligence in the field of corporate governance and the application of its principles to companies (Petrin, 2019), in an attempt to protect the rights of all parties in the company, especially shareholders and stakeholders whose rights may be lost as a result of inexperience or the interference of the board of directors who are not concerned with the rights of this group, especially with the absence of transparency and clarity about information related to the company. This system is a necessity for this system to be imposed by them, and they can avoid problems that they can be able to manage by the system and predict, with what they can be able system for the system The COVID-19 pandemic may have forced many companies to

change and move toward digitization and governance through AI (Aleem, Sufyan, Ameer, & Mustak, 2023) mechanisms. The Iraqi Ministry of Industry and the Ministry of Industry are working to establish the Iraqi Ministry of Industry and Minerals in the future.

In the past few years, the term "corporate governance" has been used as a means of protecting national and international economies from economic collapses and financial crises, which were previously experienced by the private international companies in 2001 and 2002 and which ravaged many developed and emerging (Hoffmann-Riem, 2020) economies to the point that some have described as the financial tsunami", which has made governance one of the most important topics for which international institutions and organizations pay great attention in addition to including them on their agenda, as evidenced by the Corporate Corporate Governance Guide in the Emerging Markets issued by the International Projects Center, for example, Nigeria, and the transformation of its financial (Schuler, Orr, & Hughes, 2023) markets. Corporate governance therefore plays a powerful and important role in developing a strong legal system that can help emerging economies to implement effectively and generate a system of information, and the knowledge, which contains the data, and the knowledge of the database, which is responsible for the establishment of contracts, and the dispute and the rule of contracts, enable it to supervise and monitor (Jr., E., & Trahan, 2007), and then confront corruption and mismanagement (Schuler, Orr, & Hughes, 2023).

#### **Study problem:**

The problem with research lies in the role of artificial intelligence in helping shareholders and stakeholders monitor management effectively by looking at how to diagnose the legal basis and mechanisms of the reliance of corporate governance on AI systems.

#### **Study goals:**

- Learn about artificial intelligence systems and features.
- Identify and characterize corporate governance.
- The mechanism for adopting artificial intelligence systems in corporate governance.

#### **Importance of the study:**

The importance of applied research stems from emphasizing the importance of expanding the application of AI and its relationship to corporate governance and tapping the potential of AI as a sophisticated mechanism for applying the technological governance of companies, particularly the governance of IT technology.

#### **Methodology:**

The study relied on the descriptive and analytical approach, by extrapolating and

analyzing the study, research, books, and periodicals that are related to the subject of the research, namely, artificial intelligence, its relationship and its impact on corporate governance, to identify the theoretical basis of AI applications as well as the mechanisms and concepts of corporate governance that can be utilized in the development of modern institutions.

### Study questions:

- What is artificial intelligence, governance, automation, and digital transformation?
- What is the role of artificial intelligence in the oversight of companies and adherence to governance rules?
- How do companies rely on artificial intelligence in governance?

### Literature Review:

Result	Goal	Study	Researcher
The study recommended the need to speed up and direct the electronic and digital system for companies	Spotlight on corporate governance of artificial intelligence for the common good.	“Corporate governance of artificial intelligence in the public interest. <i>Information</i> , 12(7), 275.”	Cihon, P., Schuett, J., & Baum, S. D. (2021).
The study suggested that AI-supported analyzes provide decision makers with standardized-time insights into a company's financial performance, enabling them to quickly identify areas for improvement and take corrective action. Artificial intelligence can also be used to automate compliance and fraud detection, thereby improving the overall framework for corporate governance.	Highlighting the role of artificial intelligence in shaping the future of corporate governance.	Toward artificial governance? The role of artificial intelligence in shaping the future of corporate governance. <i>Journal of Management and Governance</i> , 24, 851-870”.	Hilb, M. (2020).
Promoting artificial intelligence in companies	Artificial intelligence, technical corporate governance, and corporate regulatory response	“Artificial intelligence, tech corporate governance and the public interest regulatory response. <i>Cambridge Journal of Regions</i> ,	Dignam, A. (2020).

		<i>Economy and Society</i> , 13(1), 37-54".	
--	--	---	--

Artificial intelligence: a branch of computer science concerned with the creation of technological systems capable of carrying out tasks that require thought and intelligent analysis similar to those of humans, the term artificial intelligence can be defined as the ability of machines and digital computers to perform certain tasks that mimic and resemble those of intelligent (Sternberg, 2023) organisms; Like the ability to think or learn from past experiences or other processes that require mental processes, AI aims to reach intelligent systems that behave like humans in terms of learning and understanding, providing their users with different services of education, guidance, interaction, etc (Buchanan, 2019).

**Corporate governance:** Corporate governance is the laws and standards that define the relationship between a company's management on the one hand and its shareholders and stakeholders or parties associated with the company (Liang, Tsai, Lu, & Chang, 2020) (bondholders, workers, suppliers, creditors, consumers) on the other hand. Corporate governance includes relationships between different interests, goals and company management, other stakeholders include workers (employees), customers and creditors (such as banks, bondholders), suppliers, regulators, and the whole (Soluk, Decker-Lange, & Hack, 2023) community.

**Organizations often use "software"** as a means of automation to optimize their workflows, automatically complete repetitive tasks, and use methods and methods of automating digital (Hanisch, Goldsby, Fabian, & Oehmichen, 2023) processes do not necessarily mean that all processes are automated, but are often only partially (Hilpisch, 2020) automated, meaning that human interaction or intervention in those processes will still be required.

**Digital transformation of companies:** The actions of an enterprise to integrate digital technology into all areas of business, which radically (Uddin, Mollah, Islam, & Ali, 2023) alter how an organization provides its customers with services or products that are of high value in use or impact rather than in material value, and means that companies are using innovative (Fischer, Imgrund, Janiesch, & Winkelmann, 2020) digital technologies to make cultural and operational transformations that are better aligned.

**The governance of artificial intelligence:** is something that encompasses all governance processes, i.e. the way rules or procedures are organized and maintained and accountability (Mäntymäki, Minkinen, Birkstedt, & Viljanen, 2022) is often defined, and the governance of artificial intelligence is interpretable, transparent, and ethical, and the governance of artificial intelligence can also be defined as: the development of a legal framework to ensure that machine learning (ML) techniques are well thought out and

developed with the aim of helping humanity navigate the adoption of AI systems fairly (Schneider, Abraham, Meske, & Brocke, 2020).

### **Enterprise AI Governance Responsibility**

- The CEO or commander-in-chief of a government organization should be the person ultimately responsible for the AI governance charter as well as for a clear assignment of responsibility within the organization.
- Since the data is a competitive asset, control and possibly auditing will be the responsibility of the organization's (Hickman & Petrin, 2021) board of directors, which should include the audit committee.
- Several specific functional roles within the organization must be included in AI governance: the general counsel will be responsible for legal aspects and risks, the financial director for cost and financial risk elements, and the chief data officer (CDO) will be responsible for coordinating and maintaining the ongoing evolution of AI governance in the organization (Cui, Xu, & Razzaq, 2022).

### **Artificial intelligence and a cycle of oversight of companies' compliance with governance rules.**

Governance increases confidence in the national economy, deepens the role of the financial market, increases its capacity to mobilize savings, raises investment (Mohamed, SADIK, & IBOURK, 2022), and preserves the rights of minority or small investors. On the other hand, governance encourages the growth of the private sector, supports competitiveness, helps enterprises obtain finance, generates profits, and finally creates jobs. Advanced algorithms, and artificial intelligence, develop every day and reshape commercial life; Also, the efficiency of autonomous systems in companies (Lichtenthaler, 2018) is expected to increase.

### **Assisted artificial intelligence:**

An AI personal assistant can be defined as a program that relies on techniques such as natural language processing (NLP) to track audio and text commands and perform many tasks, previously the exclusive domain of human (Malik, Budhwar, & Kazmi, 2023) assistants, such as reading text, correcting errors, making calls, summarizing meetings, and others, and AI assistants rely on the cloud; That means you can reach them anywhere as long as there's an internet connection.

### **Enhanced artificial intelligence:**

(Gallardo, et al., 2018) Augmented Reality (Augmented Reality or AR) is a technology that integrates digital information with real-time reality. When using augmented reality applications, users can see the world around them on a screen (whether a smartphone or a pair of glasses). Still, with the addition of a layer of



information, augmented reality marketing is a new strategy for many companies that want to combine print and online advertising while delivering an interactive experience, brands can place tracking tools in print catalogs, movie posters, packaging or augmentation products to launch augmented reality experiences such as 3D animated characters, additional information, or links directly to online, which means they can scan users for viewing of collection boxes with a holiday experience.

Digital transformation and the 19 COVID virus have had a tremendous impact on business management from changing business patterns day by day making complexity and rapid transformation of the world difficult to make appropriate and rapid decisions, especially in crisis management, and reducing error and risk (Dafri & Al-Qaruty, 2023), AI systems can analyze large amounts of data that enhance business processes.

### **Mechanisms for companies to adopt artificial intelligence systems in corporate financial governance.**

The company's (Baburaj, 2021) degree of reliance on artificial intelligence depends largely on the board's conviction of its usefulness in managing the company. It is a policy that adopts processes of change and global development, and no one can overlook the role of artificial intelligence through meetings that adopt online voting policies for large (Tawakol, 2023) companies.

Databases: Data ratio measures or data source, plus metrics about data quality.

Safety: The intent here is the safety and use of models and the ability to understand manipulation or improper use of AI environments.

Cost / Value: There must be key performance indicators for the data cost or even the value generated by the data and algorithm.

Accountability means clear responsibility and therefore the participation of individuals, when using systems or any decisions.

### **Internal controls of corporate governance**

**Monitoring by the Governing Council:** The Governing Council, with its legal authority for recruitment, termination/dismissal and remuneration of senior management, guarantees for invested capital, and thus evaluating senior management on the basis of the quality of decisions leading to financial performance results, before they occur.

**Internal control procedures and internal auditors:** internal control procedures and policies implemented by the entity of a board of directors, audit committee, management and other staff to provide reasonable assurance to the entity to achieve its objectives of credible financial reporting, operational efficiency and compliance with laws and regulations.

**Balance of power:** The simplest balance of power is very common. Require the president to be someone else from the treasury secretary. This application of the

power separation is further development in companies with separate divisions balancing each other's actions.

**Remuneration:** Performance-based pay is designed to correlate some of the salary to individual performance ratio.

**Results and Conclusion:**

- Artificial intelligence is useful in automating tasks and freeing up human resources for more important work.
- Improve efficiency by identifying and automating processes that can be performed faster and more accurately.
- Reduce costs by automating routine tasks and reducing the need for human inputs.
- Strengthening business capabilities in all areas, giving companies the ability to show all their potential, and take them to the highest levels.
- Improve the performance and productivity of institutions by automating processes or tasks that previously required manpower.

**Recommendations:**

- The need to move toward AI digitization and corporate governance.
- Small businesses can use the power of artificial intelligence to create customized marketing campaigns, quickly collecting and analyzing customer data; such as: customer behavior and preferences.
- The need to introduce corporate AI governance where some automation tools can enable companies to integrate their service into other applications such as CRM software, leading to a more efficient and streamlined workflow.

**References**

- Aleem, M., Sufyan, M., Ameer, I., & Mustak, M. (2023). Remote work and the COVID-19 pandemic: An artificial intelligence-based topic modeling and a future agenda. *Journal of business research*, 154, 113303.
- Baburaj, A. (2021). Intuitive Decision Making: How Far Can It Transform Corporate Governance? *GNLU L. Rev.*, 8, 233.
- Buchanan, B. (2019). Artificial intelligence in finance.
- Cui, X., Xu, B., & Razzaq, A. (2022). Can Application of Artificial Intelligence in Enterprises Promote the Corporate Governance? *Frontiers in Environmental Science*, 10, 944467.
- Dafri, W., & Al-Qaruty, R. (2023). Challenges and opportunities to enhance

- digital financial transformation in crisis management . *Social Sciences & Humanities Open*, 8(1), 100662.
- Fischer, M., Imgrund, F., Janiesch, C., & Winkelmann, A. (2020). Strategy archetypes for digital transformation: Defining meta-objectives using business process management. *Information & Management*, 57(5), 103262.
- Gallardo, C., Rodríguez, S. P., Chango, I. E., Quevedo, W. X., Santana, J., Acosta, A. G., et al. (2018). Augmented reality as a new marketing strategy. In *Augmented Reality, Virtual Reality, and Computer Graphics: 5th International Conference, AVR 2018, Otranto, Italy, June 24-27, 2018, Proceedings, Part I 5* , pp. 351-362. Springer International Publishing.
- Hanisch, M., Goldsby, C. M., Fabian, N. E., & Oehmichen, J. (2023). Digital governance: A conceptual framework and research agenda. *Journal of Business Research*, 162, 113777.
- Hickman, E., & Petrin, M. (2021). Trustworthy AI and corporate governance: the EU's ethics guidelines for trustworthy artificial intelligence from a company law perspective. *European Business Organization Law Review*, 22, 593-625.
- Hilpisch, Y. (2020). Artificial Intelligence in Finance. O'Reilly Media.
- Hoffmann-Riem, W. (2020). Artificial intelligence as a challenge for law and regulation. *Regulating artificial intelligence*, 1-29.
- Jr., R., E., H., & Trahan, E. A. (2007). Corporate financial control mechanisms and firm performance: The case of value-based management systems. *Journal of business finance & accounting*, 34(1-2), 111-138.
- Liang, D., Tsai, C. F., Lu, H. Y., & Chang, L. S. (2020). Combining corporate governance indicators with stacking together for financial distress prediction. *Journal of Business Research*, 120, 137-146.
- Lichtenthaler, U. (2018). Beyond artificial intelligence: why companies need to go the extra step. *Journal of Business Strategy*, 41(1), 19-26.
- Malik, A., Budhwar, P., & Kazmi, B. A. (2023). Artificial intelligence (AI)-assisted HRM: Towards an extended strategic framework. *Human Resource Management Review*, 33(1), 100940.
- Mäntymäki, M., Minkkinen, M., Birkstedt, T., & Viljanen, M. (2022). Defining organizational governance. *AI and Ethics*, 2(4), 603-609.
- Mohamed, E. L., SADIK, A., & IBOURK, A. (2022). Impact of good governance practices on the performance of microfinance institutions: A Monthly Review. *International Journal of Gestion Sciences*, 5(3).
- Petrin, M. (2019). Corporate Management in the Age of AI. . *Colum. Bus. L. Rev*, 965.
- Schneider, J., Abraham, R., Meske, C., & Brocke, J. V. (2020). AI governance



- for businesses. arXiv preprint . *arXiv:2011.10672*.
- Schuler, B. A., Orr, K., & Hughes, J. (2023). My colleagues (do not) think the same: Middle managers' shared and separate realities in strategy implementation. *Journal of Business Research*, 160, 113782.
- Soluk, J., Decker-Lange, C., & Hack, A. (2023). A dynamic capabilities perspective on business networks and non-disruptive digital technologies in SMEs. *Technological forecasting and social change*, 191, 122490.
- Sternberg, R. (2023). Intelligence. *The Palgrave Encyclopedia of the Possible*, 793-800.
- Tawakol, F. (2023). The Role of Artificial Intelligence in Voting inside Joint-Stock Company Meetings. *J. Legal Ethical & Regul. Issues*, 26, 1.
- Uddin, M. H., Mollah, S., Islam, N., & Ali, M. H. (2023). Does digital transformation matter for operational risk exposure? *Technological Forecasting and Social Change*, 197, 122919.