

## EDITORIAL: Artificial intelligence and corporate governance — Opportunities and challenges

*Dear readers!*

The ongoing digital transformation presents opportunities and challenges for corporate governance. This transformative period is characterized by the emergence of prevailing technologies such as artificial intelligence (AI) (Água, 2023). These technologies have the potential to disrupt traditional business models and introduce new approaches to management particularly in the decision-making process (Brynjolfsson & McAfee, 2014).

AI technologies provide a vast potential for improving corporate governance (Água, 2023). Yet, despite the transformative potential of AI, its application in the corporate governance field remains under-explored (Mikalef et al., 2019).

Some studies have recently examined the relationship between AI and corporate governance (Hilb, 2020; Khan et al., 2022; Cui et al., 2022). They found that AI has an impact on corporate governance, and there is an intrinsic link between the two. However, the impact of AI on corporate governance has garnered significant attention in the academic community, but a consensus has not yet been reached. Hilb (2020) proposed five scenarios of AI governance based on business, technological, and social perspectives: assistive AI, augmented AI, amplified AI, autonomous AI, and autopoietic AI. His study demonstrated the varying degrees of influence these scenarios have on board decisions. Khan et al. (2022) revealed the mediating role of technological innovation in the relationship between board attributes and economic development. Cui et al. (2022) empirically analyzed the mechanisms and mediation effects of AI on corporate governance, suggesting that AI applications can enhance the information required for good governance and thus provide favorable conditions for improving corporate governance and decision-making processes.

In a more recent study published with my colleague Run Huang in 2024, we examined the relationships among corporate governance attributes, AI, and corporate innovation. Adopting a new perspective, we have tried to help resolve the issue using a content analysis that integrates data from over 100 companies that trade on National Association of Securities Dealers Automated Quotations (NASDAQ) and TSX to analyze the relationship between board attributes, practice of AI and firm innovation for the time 2018–2022. The results suggest that specific board characteristics, such as board size, board diversity, and ownership concentration show significant correlations with firm AI development and innovation for overall industries, but the levels of associations vary depending on different innovation measurements and specific industries.

This latest issue of the journal is composed of 16 papers which are mostly empirical and contribute new perspectives to the major issues of corporate governance, such as board of directors' characteristics, capital structure, emerging technologies, AI, digital transformation, decision-making process, agency theory issues, stakeholders' theory, audit and accountability, sustainability, institutional ownership, and firm performance. The papers analyze works published all around the world and data from numerous countries such as the United States, China, Italy, countries of the MENA region, Fiji, and other emerging economies.

We hope that you will enjoy reading this issue of our journal!

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### REFERENCES

- Água, P. B. (2023). Artificial intelligence to enhance corporate governance: A conceptual framework. *Corporate Board: Role, Duties and Composition*, 19(1), 29–35. <https://doi.org/10.22495/cbv19i1art3>
- Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W.W. Norton & Company. [https://edisciplinas.usp.br/pluginfile.php/4312922/mod\\_resource/content/2/Erik%20-%20The%20Second%20Machine%20Age.pdf](https://edisciplinas.usp.br/pluginfile.php/4312922/mod_resource/content/2/Erik%20-%20The%20Second%20Machine%20Age.pdf)
- Cui, X., Xu, B., & Razaq, A. (2022). Can application of artificial intelligence in enterprises promote the corporate governance? *Frontiers in Environmental Science*, 10, Article 944467. <https://doi.org/10.3389/fenvs.2022.944467>

- Gouiaa, R., & Huang, R. (2024). How do corporate governance, artificial intelligence, and innovation interact? Findings from different industries. *Risk Governance and Control: Financial Markets & Institutions*, 14(1), 35-52. <https://doi.org/10.22495/rgcv14i1p3>
- Hilb, M. (2020). Toward artificial governance? The role of artificial intelligence in shaping the future of corporate governance. *Journal of Management and Governance*, 24, 851-870. <https://doi.org/10.1007/s10997-020-09519-9>
- Khan, M. A., Mazliham, M. S., Alam, M. M., Aman, N., Malik, S., Urooj, S. F., & Taj, T. (2022). An empirical mediation analysis of technological innovation based on artificial intelligence in the relationship between economic development and corporate governance mechanism. *Frontiers in Environmental Science*, 10, Article 999096. <https://doi.org/10.3389/fenvs.2022.999096>
- Mikalef, P., Boura, M., Lekakos, G., & Krogstie, J. (2019). Big data analytics and firm performance: Findings from a mixed-method approach. *Journal of Business Research*, 98, 261-276. <https://doi.org/10.1016/j.jbusres.2019.01.044>