CORPORATE GOVERNANCE IN THE CONTEXT OF DIGITAL TRANSFORMATION: THE ROLE OF ARTIFICIAL INTELLIGENCE

OLENA BOBROVSKA
ORCID: 0000-0002-2174-9040
UNIVERSITY OF CUSTOMS AND FINANCE, DNIPRO, UKRAINE

MAKSYM MAKARENKO
ORCID: 0000-0001-8677-8670
MAKSYM MAKARENKO DENTAL CLINIC LLC, KYIV, UKRAINE

NATALIIA ANDRUSHKEVYCH
ORCID: 0009-0006-2154-4068
PRIVATE HIGHER EDUCATION ESTABLISHMENT "EUROPEAN UNIVERSITY", KYIV, UKRAINE

OLEKSANDRA NIEMA
ORCID ID: 0000-0003-1242-7151
LVIV POLYTECHNIC NATIONAL UNIVERSITY, LVIV, UKRAINE

NATALIIA DOBRIANSKA
ORCID ID: 0000-0002-6319-0409
V. I. VERNADSKY TAURIDA NATIONAL UNIVERSITY, KYIV, UKRAINE

OLEKSANDR PETRYCHENKO
ORCID ID: 0009-0002-4906-0533
V. I. VERNADSKY TAURIDA NATIONAL UNIVERSITY, KYIV, UKRAINE

abstract:

The digitalization of corporate governance, particularly via the integration of AI, represents a profound transformation that is redefining traditional practices. The rising use of artificial intelligence technologies, including generative AI tools, in organizations is undeniable. The article attempts to summarize the existing trends in AI incorporation in corporate governance and outline patterns of appropriate benefits and challenges. The analysis showed that as these systems become increasingly integrated into organizational practices and processes, organizations benefit from AI in both routine and highly complex tasks and decision-making. AI has developed as a key concern when contemplating the future of organizations and organizing. The ability of AI to act autonomously distinguishes it from technologies historically used in organizations. This autonomy also gives rise to new forms of organizing with a non-human actor and challenges existing conceptualizations of technology in organization studies. As AI contributes to the automation of many aspects of management and impacting organizational dynamics, it has emerged as a very significant organizational phenomenon that entails both theoretical challenges and opportunities for management and organization studies scholars.

Keywords: Artificial intelligence; AI technologies; AI in organizational context; AI biases; Risk management; Decision-making; Corporate governance; Corporate organization; Digital transformation.

In today's quickly changing business world, digital transformation has become a must rather than an option for businesses across industries. The digital revolution has caused enormous changes in how businesses operate, communicate, and engage with their stakeholders. Corporate governance and compliance have experienced significant changes as a result of digitization.

Digital transformation has a substantial influence on corporate governance, necessitating changes to existing frameworks and processes. It demands a focus on emerging technologies, data management, cybersecurity, and meeting changing stakeholder expectations. Effective digital transformation in corporate governance entails increasing openness, improving decision-making, and mitigating related risks.

Embracing digital transformation in corporate governance and compliance has several benefits. First, it promotes greater openness and responsibility. Digital tools and technology provide real-time reporting, data analytics, and improved communication, making it simpler for businesses to manage and report on their governance and compliance initiatives (Randive, 2024). Second, digital transformation improves both efficiency and production. Automating procedures, optimizing workflows, and deploying digital solutions can help to eliminate manual mistakes, save time, and increase overall operational efficiency. This allows firms to better deploy resources and focus on strategic goals. Finally, digital transformation improves risk management. Companies that use sophisticated analytics and artificial intelligence can obtain useful insights into possible dangers and proactively reduce them (Andriyiv et al., 2022). This not only helps to ensure compliance, but also protects the company's brand and reduces legal and financial risks (Bankins et al., 2025).

The digital Business Support System (BSS) market is expected to grow from USD 5.8 billion in 2023 to USD 12.5 billion in 2028, with a compound annual growth rate (CAGR) of 16.6% (Digital BSS Market by Offering, 2024). Digital BSS makes use of technology such as cloud computing, AI, machine learning, the Internet of Things (IoT), and big data. These technologies assist firms in a variety of ways, including better customer experience, lower operating expenses, and more income. As these technologies advance, the demand for digital BSS solutions will rise. Figure 1 illustrates the projected trends.
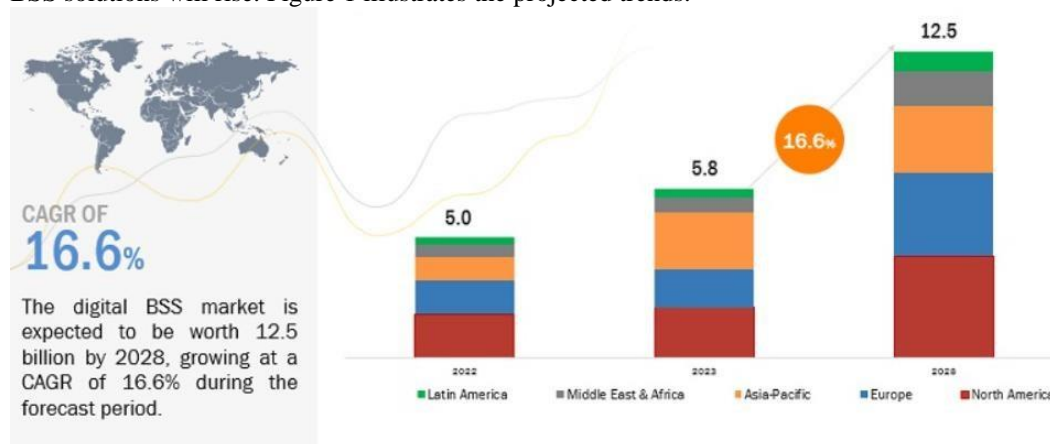

FIGURE 1 Digital BSS market global forecast to 2028, in USD bln (Digital BSS Market by Offering, 2024)

At the same time, many businesses boast about "Digital Transformation" but only use it in restricted ways, such as just converting paper into PDFs or utilizing online tools to connect with clients, but in the end, the fundamental culture and even business model have changed. Meanwhile, the breadth of digital transformation is broad. Today, experts recommend segmenting the Digital Directive into seven primary components to determine a company's digital transformation maturity (see Figure 2).

FIGURE 2 The Digital Directive for a heuristic evaluation of Digital Transformation within a company
(Ray et al., 2024)

Making decisions based on data analysis, knowing how to use information and data as a product rather than just physical assets, iterating quickly, accepting failure as a tool for growth, and cultivating a flexible and

agile culture are all examples of a "digital first" culture in such a corporate setting (Arivazhagan et al., 2023). Ultimately, the firm can create new offers and even new business models by developing new means to reach the market (Abu Samara et al., 2024). Machine learning (ML), natural language processing (NLP), robotic process automation (RPA), and decision support systems (DSS) are examples of AI tools and methods for decision-making.

Although there are many advantages to digital transformation, there are dangers and difficulties as well that must be properly considered (Bashtannyk et al., 2024). The necessity of changing the organization's culture is one of the main obstacles. A shift in perspective and a dedication to lifelong learning and skill development are necessary for embracing digital transformation (Öztürk, 2021). The effective adoption of digital solutions may be hampered by resistance to change. The possibility of cybersecurity threats is another difficulty. Businesses are more susceptible to cyberattacks as they grow more digitally integrated. Effective corporate governance and compliance depend on safeguarding private information and making sure digital networks and systems are secure (Torre et al., 2020).

Additionally, corporations may find it difficult to stay abreast of the most recent trends and advancements due to the quick speed at which technology is developing. If this isn't done, the business may end up with antiquated procedures and systems that make it more difficult to comply with governance and compliance standards (Cherniaiev et al., 2024; Berezniak et al., 2025). Businesses must take a systematic, all-encompassing strategy to successfully integrating digital transformation into corporate governance and compliance. Above all, having a clear strategy and roadmap for digital transformation is crucial. This entails determining the precise aims and objectives in addition to the crucial areas that require transformation.

Businesses should also spend money on the appropriate digital tools and technological infrastructure. This entails making use of automation, artificial intelligence, data analytics, and cloud computing (Byrkovych et al., 2023; Ferdman et al., 2025). Selecting solutions that are safe, scalable, and in line with the organization's governance and compliance needs is crucial. Artificial intelligence solutions are among the most promising avenues for the digital revolution of corporate governance.

Through better decision-making, enhanced risk management and compliance, and increased operational efficiency, artificial intelligence is profoundly changing corporate governance. Large volumes of data may be analyzed by AI-powered systems to spot patterns and possible problems, assisting boards in making better choices and taking proactive measures to overcome obstacles (Borysenko et al., 2025). Although AI has many advantages, it also brings with it new problems, such as algorithmic bias, data privacy, and the requirement for strong regulatory frameworks. Therefore, a thorough examination of the state-of-the-art that outlines both current and new advantages and disadvantages is an extremely pertinent assignment.

LITERATURE REVIEW

Businesses have undergone a digital paradigm change as a result of the COVID-19 epidemic. To remain relevant in the market, one must have a strong digital infrastructure and be knowledgeable about the newest technological advancements. When the epidemic struck, several nations adopted a digital-first strategy. A growing number of businesses have come to understand that implementing a digital-first approach may provide new technology and digital solutions that can save operational costs, improve customer experiences, attract new clients, and increase their competitive edge (Smeets et al., 2021).

Sun and Guo (2024) made an effort to demonstrate how corporate governance paradigms are impacted by digital transformation. They discovered that stakeholder management, information disclosure, green governance, and other facets of corporate governance are significantly impacted by digital transformation. Suman and Mahajan (2024) investigate how these technological developments enhance accountability, transparency, and decision-making in order to fortify corporate governance. Their essay highlights the importance of digital technologies in enabling real-time data reporting, which ensures openness and traceability, in addition to describing how artificial intelligence and sophisticated data analysis facilitate informed decision-making by identifying trends and threats (Gupta et al., 2024; Kichurchak et al., 2024). This paper also examines the importance of secure communication technologies and virtual meeting places in fostering fruitful interactions between board members and stakeholders. It also addresses the important subject of cybersecurity, emphasizing the need for robust defenses like multi-factor authentication and encryption to protect sensitive data and maintain stakeholder trust. By utilizing these technological advancements and fortifying their governance frameworks, businesses may make sure they operate more effectively and ethically in the digital age (Nekhai et al., 2024; Mykolaichuk et al., 2025). This comprehensive analysis emphasizes how crucial it is for companies to adapt to the evolving digital landscape in order to uphold the principles of accountability, openness, and equity in corporate governance. Holmström and Hällgren's (2022) taxonomy of AI application in corporate environments is based on a two-by-two matrix with low and high degrees of algorithmic management and transparency. The four categories that result are Automated AI contexts (which have low transparency and high algorithmic management), Commissioned AI contexts (which have high transparency and algorithmic management), Augmented AI

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contexts (which have low algorithmic management and high transparency), and Opaque AI contexts (which have low transparency and algorithmic management), as illustrated in Figure 3.
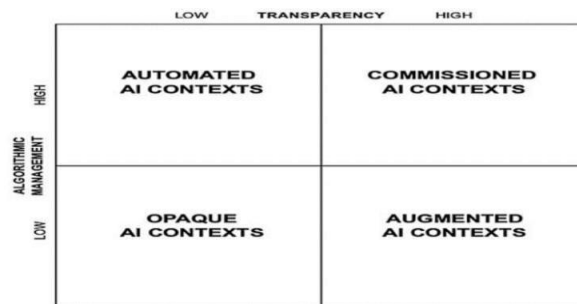
FIGURE 3 AI use in organizational contexts: a typology (Holmström & Hällgren, 2022)

Academics stress that digital transformation (DT) is more than simply implementing new and improved technologies into practice in an increasingly digital society. To maintain relevance, remain robust, and adhere to rules, it entails digital congruence, which entails coordinating the organization's tasks, structure, people, and culture (Carroll et al., 2023; Piccoli et al., 2024).

Overall, there are two main areas of research on how digital transformation affects corporate governance: the first is the company's internal strategy and operations, including corporate innovation (Niu et al., 2023), corporate environmental performance (Zhao & Cai, 2023; Yang et al., 2023), and production efficiency (Guo & Luo, 2023). The second is the company's external considerations, such as social responsibility (Xu et al., 2023) and business risk (Tian et al., 2022).

The role of AI in corporate governance digital transformation is the subject of an increasing research. The application of AI in corporate governance is specifically examined by Ustahaliloğlu (2023), who also discusses the evolving role of AI, ethical and legal concerns, liability and accountability difficulties, intellectual property considerations, and data privacy issues (Panasiuk et al., 2020; Ortina et al., 2023). Given the growing use of AI in business, the study examines why this subject is so crucial and identifies a research gap in the form of the legal ambiguities surrounding AI.

A comprehensive review on the topic of using AI to improve corporate governance was carried out by Ahbadou et al. in 2023. This comprehensive assessment of the literature critically looks at how AI is transforming corporate governance, with an emphasis on non-financial industries. Examining how AI is incorporated into various governance domains, such as the performance of the board of directors, financial distress forecasting, fraud detection, and CSR and sustainability initiatives, the review highlights how versatile and multifaceted AI technologies are in addressing particular corporate governance issues. The analysis highlights important limitations in AI's use, particularly in its integration with boardroom dynamics, despite its tremendous potential. These results highlight urgent research gaps in addition to illuminating the revolutionary impact of AI.

Dissanayake et al. carried out another systematic study in 2025. The authors examine the relationship between corporate governance (CG) and artificial intelligence (AI), emphasizing how AI tools like natural language processing and machine learning may improve company performance, compliance, risk management, and decision-making. In addition to using co-citation, thematic map, and keyword co-occurrence studies to identify contextual linkages and themes influencing the subject, the research uses bibliometric analysis to examine the contributions of authors, sources, and nations (Pasichnyi et al., 2024; Pavlovskyi et al., 2024). The assessment notes that advances in AI have led to a notable rise in publications in recent years. AI-driven decision support systems, ethical issues, and AI's contribution to fraud detection and corporate transparency are some of the major themes. The results also demonstrate the wide range of scholarly contributions made by experts in financial management, corporate ethics, and computer science (Petrukha et al., 2023; Poliova et al., 2024). AI has the potential to revolutionize CG, but there are moral and legal issues that need to be resolved. In order to ensure responsible and successful deployment, the study highlights the necessity of multidisciplinary research to examine AI's practical consequences in governance. Changes in governance procedures, evolving organizational structures, moral and legal dilemmas, and the consequences for future laws are all examined by Ouabouch and Yahyaoui (2025). While highlighting potential risks such as algorithmic bias, data security, and the redefining of roles, the findings also emphasize the enormous potential for AI to enhance productivity and decision-making.

METHODS

The theoretical and methodological basis of the study was the scientific works of researchers in the field of corporate management, decision-making processes, artificial intelligence, behavioral economics, new information theory, applied works on the functioning of modern artificial intelligence technologies. In

accordance with the research objectives, general scientific methods of management theory, statistical, comparative and logical analysis, generalization, and a systems approach to the study of organizational phenomena and processes were used.

The main toolkit of research is qualitative content analysis. The choice of this method is determined by the fact that it is used to interpret the meaning of textual data by systematically organizing and categorizing it, allowing identifying patterns, themes, and relationships within the data to gain a deeper understanding of the phenomenon under study. The sample of literature sources for analysis contains 34 items. We applied conventional content analysis,, with coding categories derived directly from the text data. The search for items for analysis was carried out in ScienceDirect, Emerald Insight, JSTOR, MDPI, and Wiley. The search for statistical data was carried out directly in Google search platform and Harvard Business Review library. The conceptual process of research is depicted in Figure 4.
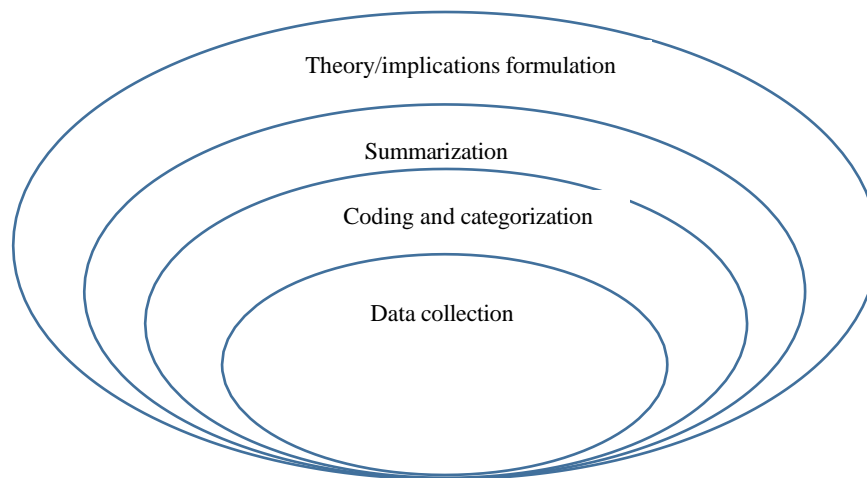

FIGURE 4. Conceptual process of research

RESULTS AND DISCUSSION

Currently, in the context of accelerating technological development in the world, the speed of change is rapidly increasing, the time of the business cycle from idea to profit has decreased from several years to several months, and companies do not necessarily need to have tangible assets to operate effectively. In order to survive in the new conditions, companies need to improve the quality of their strategic decisions, and such decisions must be fast, flexible, and analytically substantiated. This path of development should be based on intelligent methods of managing the most important resource in the 21st century information (Pyatnychuk et al., 2024; Maidaniuk et al.,2025). The development of advanced technologies today leads to increasing competition among companies, increasing pressure on existing decision-making mechanisms. This is due not only to the increasing flow of information each year but also to stronger regulatory oversight and rising stakeholder expectations. In the context of technological shifts, the board of directors, as a strategic management body adapting the company to new conditions, is forced to change first and foremost: to update its role taking into account the challenges of the time, to increase the effectiveness of management decisions, so as not to become a 'weak link' in the chain of accelerating business relations, unable to withstand the load due to the need to process growing arrays of data (Sharma, 2024). Therefore, it is important to make decisions based on high-quality analytics, and not only on expert opinion.

Therefore, it is not surprisingly that the incorporation of artificial intelligence into corporate governance has changed how businesses make decisions in recent years. AI technologies offer the potential for increased productivity, improved decision-making, and greater transparency.

Advanced data analytics and AI-analyzed data assist the firm in making well-informed decisions about the company's future. AI supports informed decision making by analyzing data to discover trends and hazards. Secure communication technologies and virtual meeting platforms that improve communication and cooperation allow board members and stakeholders to participate more successfully (Dastani & Yazdanpanah, 2023).

Decision-making processes in corporate governance might be enhanced by AI. Organizations can make more accurate decisions based on data because to its ability to evaluate vast volumes of data faster than people (Wang et al., 2018). By automating repetitive processes like data input and analysis, AI may free up human resources for higher-level planning and value-added work (Petrukha et al., 2015; Zilinska et al., 2022). The cost savings and increased productivity brought about by this increased efficiency may be used to achieve the core objectives of corporate governance. These benefits do have some disadvantages, too. The potential for AI to reinforce and perpetuate biases already in historical data is among the most significant concerns.

AI systems may make discriminatory decisions if they are trained on biased datasets, which might raise issues with their reputation and legal standing (Timmons et al., 2023). Maintaining justice and fairness in AI systems requires ongoing research and stringent oversight.

The function of artificial intelligence in Agile organization management is one of the main topics covered in this conversation. Organizational agility is impacted by AI, according to practice, which makes businesses more adaptable, creative, and eager to react swiftly to change (Kwasek et al., 2024). Although the idea of agile management is not new, it has been more well-known recently as a crucial tactic for businesses looking to become more responsive and flexible (Ravlinko et al., 2023; Zhumbei et al., 2025). Businesses have new opportunities when AI is incorporated into business operations since it allows them to automate procedures, make better choices, and customize client experiences. However, there are drawbacks to employing AI to promote organizational agility as well, including the requirement for ongoing training and adaption for staff members, change management, and the moral implications of technology usage (Chen & Li, 2021).

AI aids in the process of continuous improvement and work quality assurance when it comes to detecting and fixing faults. When producing papers and studies that demand a high degree of precision, these systems' ability to identify errors and provide fixes is crucial (Ryzhakova et al., 2022; Saik et al., 2023). With the assurance that intricate tasks are being carried out precisely, teams are able to concentrate on the more strategic elements of their job. AI's capacity to inspire creativity and invention by offering intriguing answers and motivation is another significant feature of its use. AI may provide different answers when workers are faced with issues that call for creative solutions, which can speed up the creative process and project completion (Cegarra-Navarro et al. 2021).

One of the most often used domains for AI-based solutions is risk assessment. AI-powered algorithms can scan large datasets in real time, allowing companies to identify and evaluate hazards more quickly and completely than they could with traditional methods. Notably, risk management solutions powered by AI are designed to foresee threats and mitigate them before they become real. By using this proactive approach, businesses may save money and protect their reputation.

There are several difficulties and complications involved in incorporating AI into corporate governance risk management procedures. The possibility of algorithmic bias is one significant obstacle. AI systems base their forecasts and evaluations on past data. AI algorithms may reinforce or even worsen prejudices if these datasets are skewed or lacking (Bansal et al., 2024; Serhieiev et al., 2025). This could result in unfair or discriminatory decisions, putting businesses at risk for legal issues as well as damage to their brand. The creation of more inclusive and varied datasets, continuous monitoring, and data quality enhancement are all necessary to mitigate algorithmic bias.

The incorporation of AI into corporate governance is severely hampered by algorithmic biases, which might have detrimental effects on nondiscrimination and fairness. One of the biggest risks to AI in corporate governance, according to experts, is biased algorithmic choices (Holmström & Hällgren, 2022). These prejudices have the potential to compromise corporate governance's efficacy by producing widespread discriminatory outcomes in addition to undermining the validity of the decisions taken (Sydorchuk et al., 2024). These biases are particularly damaging and noticeable in talent and human resources management. Attracting, developing, and retaining employees are the three primary stages of talent management. Each of these categories has pain spots that AI may help with. AI-based talent marketplaces, both internal and external, are growing in popularity at the same time, but they also carry harmful biases. Usually, pre-existing datasets are used to train AI systems, which may have biases from the past (Yermachenko et al., 2023; Voronina et al., 2024). Other instances of prejudice in AI include sourcing algorithms that specifically target an audience of 85% women for employment as supermarket cashiers and an audience that was 75% Black for jobs at taxi businesses, in addition to the well-known Amazon AI tool that discriminated against female candidates. Because AI is prone to prejudice, its use in talent management may result in outcomes that go against company ethics and values, which would eventually harm employee morale, engagement, and productivity (Kim-Schmid & Raveendhran, 2022).

Furthermore, companies may be held accountable for inadvertent employment discrimination committed by AI-powered systems, according to the American Bar Association (Mertens, 2023). Furthermore, the legislation at the state, federal, and international levels that regulate the rights and obligations of employers and employees with regard to AI are always changing. As a result, biases in AI algorithms used in HRM might not only lower the quality of a company's human capital but also damage its brand and result in legal action.

The AI Incident Database (AIID), which monitors instances of unethical usage and unexpected outcomes of AI, shows a notable 26% rise in events recorded between 2022 and 2023. Credibly available data for 2024 shows a further increase of over 32%, and this is probably going to continue in 2025 (see Figure 5) (Pirchalski & Herndon, 2024).
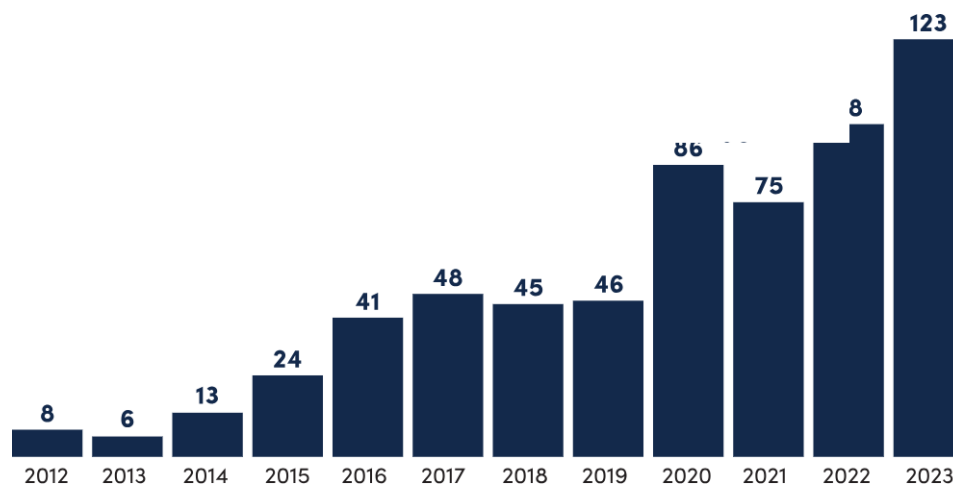
FIGURE 5
Reported AI incidents (Pirchalski & Herndon, 2024)

The ongoing increase in events is probably caused by a number of related issues. AI governance is still in its early stages, and risk assessment techniques are still developing and not yet widely used. Furthermore, boards often lack visibility into the governance mechanisms that exist, if any. Recent research shows that 45% of boards have not yet included AI on their agendas, and just 14% of boards discuss AI at every meeting (Pirchalski & Herndon, 2024). This lack of regular board engagement contributes to inadequate supervision and comprehension of AI governance, increasing the risk of misuse and unintended consequences.

Organizations might not have enough motivation to give AI risk management, a crucial part of larger AI governance, top priority in the absence of explicit legislative requirements. Additionally, it can be difficult to predict AI hazards since they come from both the models or systems themselves and the larger social and commercial settings in which they are employed, as well as how those contexts may organically evolve over time (Zayats et al., 2024). This emphasizes how crucial it is that boards take into account contextual elements like user demographics, industry-specific rules, and market and economic conditions that influence how AI functions within certain businesses, in addition to technical AI issues.

However, AI-powered technologies are not universally applicable. Indeed, AI is only as effective as the goal it is optimized for, and it may be built to optimize for a variety of criteria (Avedyan et al., 2023). Therefore, executives must think about the adoption and implementation problems of AI in order to fully utilize its potential for talent management. Establishing guidelines for how visible and explicable AI judgments must be within the company and developing internal procedures based on how one's business interprets fairness in algorithmic results are crucial steps in methodically reducing bias in AI technology. Leaders should also exercise caution when establishing fairness standards that fail to take equity into consideration, especially when it comes to disadvantaged groups. Leaders may combat this by proactively setting distinct criteria for various groups to remove ingrained biases and by including characteristics like gender and ethnicity into algorithms. To successfully assess its execution, boards should concentrate on metrics such as organizational openness, consumer trust in AI efforts, and the C-suite's comprehension of their role in governance.

Another issue with AI-driven risk models is their interpretability. Since many AI systems, including deep learning neural networks, rely on intricate mathematical calculations that are hard for humans to understand, they are sometimes referred to as "black boxes" (Öztürk, 2021). When attempting to explain risk assessments to stakeholders, regulators, or the general public, this lack of transparency may provide challenges. An important problem in AI-driven risk management is finding a balance between the predictive capability of AI and the requirement for accountability and transparency.

Globally, viewpoints differ based on economic and cultural situations. Comparative research demonstrates that local conditions influence the use of AI in corporate governance, with significant disparities between industrialized and developing nations.

One should be mindful that if AI is not properly constructed, it might replicate or exacerbate preexisting organizational and societal prejudices. To ensure that AI complements diversity and human representation rather than replaces it, it is imperative to strike a balance between human abilities and technical tools in this context. In order to succeed in this new era, where AI technologies are always changing, managers must also acquire specialized skills.

Businesses must proactively use AI to further their own business goals rather than just "using" it to stay competitive. A key component of this endeavor is data governance. While gaps in data preparedness should guide governance objectives, high-quality data can open doors for significant AI solutions. In order to achieve corporate objectives, make use of the appropriate data and knowledge, and be in line with the

organization's risk tolerance and governance frameworks, boards should direct management toward solutions that are technically practicable, strategically useful, and operationally controllable. By encouraging multidisciplinary cooperation between management teams in charge of AI, data, and company strategy, boards may help to strengthen this alignment.

CONCLUSION

According to the report, corporate governance is changing significantly in a time when digital revolution is changing every aspect of company. We looked at the various ways that digital transformation has affected corporate governance, highlighting the need for businesses to modify their governance procedures in order to be competitive and compliant in the quickly evolving technology landscape.

To sum up, incorporating AI into corporate governance has become a game-changer, altering how companies function and plan. AI has improved operational efficiency and promoted innovation and competitiveness through its capacity to automate repetitive jobs, produce insights from data, and support decision-making processes. Adoption of AI is not without difficulties, though. Significant obstacles that businesses must overcome include worries about data privacy, the moral application of AI, and the requirement to upskill the workforce. To properly utilize AI's promise, businesses must also cultivate a culture of ongoing learning and adaptation.

AI will surely have an impact on corporate management in the future, but how much of an impact it has will mainly depend on how successfully businesses handle these difficulties. It will be interesting to see how AI develops more and changes the business environment as time goes on. A wide range of opportunities in the field of artificial intelligence in corporate management remain to be investigated; this research has only touched the surface. In order to effectively utilize AI's potential in corporate management, future research should concentrate on methods to lessen these obstacles.

REFERENCES

1. Abu Samara, F., Abu Taha, A., Massa, N., Abu Jamic, T., Harara, F., Abu-Nasser, B., Abu-Nasser, S. (2024). The Role of AI in Enhancing Business Decision-Making: Innovations and Implications. *International Journal of Academic Pedagogical Research, 8*(9), 8-15. https://philarchive.org/archive/ABUTRO-9
2. Ahdadou, M., Aajly, A., & Tahrouch, M. (2024). Enhancing corporate governance through AI: a systematic literature review. *Technology Analysis & Strategic Management*, 1–14. https://doi.org/10.1080/09537325.2024.2326120
3. Andriyiv, N., Pushak, H., & Shtangret, I. (2022). Transformation of Threats to Demographic Security and Sustainable Development of the Region Due to Increased Military Actions. *International Journal of Sustainable Development and Planning*, 17(7), 2221–2227. DOI:10.18280/ijsdp.170722
4. Arivazhagan, D., Patil, K., Dubey, C., & Mishra, P. (2023). An Assessment of Challenges of Digitalization of Agrarian Sector. *Lecture Notes in Networks and Systems*, 621 LNNS, 48-57.
5. Avedyan, L., & Belyavtseva, V. (2023). The effectiveness of the development of territories in the state regional system politicians. *Financial and Credit Activity Problems of Theory and Practice*, *4*(51), 333–344.
6. Bankins, S., Ocampo, A. C., Marrone, M., Restubog, S. L. D., & Woo, S. E. (2024). A multilevel review of artificial intelligence in organizations: Implications for organizational behavior research and practice. *Journal of Organizational Behavior, 45*(2), 159–182. https://doi.org/10.1002/job.2735
7. Bansal, Ch., Pandey, K., Goel, R., Sharma, A., Jangirala, Sh. (2024). Artificial intelligence (AI) bias impacts: classification framework for effective mitigation. *Issues in Information Systems, 24*(4), 367-389.
8. Bashtannyk, V., Terkhanov, F., & Kravtsov, O. (2024). Integrating digitization into public administration: Impact on national security and the economy through spatial planning. *Edelweiss Applied Science and Technology*, *8*(5), 747–759.
9. Berezniak,O., Mladetskyi, I., Berezniak, O., Dreshpak, O., Akimov, O. (2025). High-Frequency Demagnetization Of Magnetite Suspensions. *Mining mineral depos.* Volume 19 (2025), Issue 2, 132-140. https://doi.org/10.33271/mining19.02.132
10. Borysenko, M. V., Zolotov, A. V. & Rusetskyi, R. Yu. (2025). Recruitment Crisis in the North Atlantic Treaty Organization: Demographic and Regional Dimensions. Ukrainian Geographical Journal. No. 2(130): 3–11. https://doi.org/10.15407/ugz2025.02.059
11. Byrkovych, T., Humenchuk, A., & Kobyzcha, N. (2023). Economic Effectiveness of State Policy in Reforming Higher Library and Information Education in Ukraine. *Economic Affairs (New Delhi), 68*(1), 599-616.
12. Carroll, N., Hassan, N. R., Junglas, I., Hess, T., & Morgan, L. (2023). Transform or be transformed: the importance of research on managing and sustaining digital transformations. *European Journal of Information Systems, 32*(3), 347-353.

Open Access

13. Cegarra-Navarro, J.C., Sánchez-García, J.C., Marco-Lajara, B., García-Pérez, A. 2021. Building organizational resilience in the face of the COVID-19 pandemic: The role of strategic agility. *Sustainability, 6*(13). https://doi.org/10.3390/su13063054

14. Chen, Y., Li, X. 2021. The Role of Organizational Agility in Managing the COVID-19 Pandemic: A Case Study of Two Chinese Hospitals. *International Journal of Environmental Research and Public Health, 1*(18). https://doi.org/10.3390/ijerph18010070.

15. Cherniaiev, O., Anisimov, O., & Saik, P. (2024). Theoretical substantiation of water inflow into the mined-out space of quarries mining hard-rock building materials. *Iop Conference Series Earth and Environmental Science,* 2024, 1319(1), 012002

16. Dastani, M., & Yazdanpanah, V. (2023). Responsibility of AI systems. *AI & Society, 38*(2), 843–852. https://doi.org/10.1007/s00146-022-01481-4

17. Digital BSS Market by Offering, Solution, Vertical and Region - Global Forecast to 2028 (2024). *MarketsAndMarkets.* https://www.marketsandmarkets.com/Market-Reports/digital-bss-market-117932243.html

18. Dissanayake, H., Nainanayake, D., Jayalath, T., Iddagoda, A. (2025). Artificial Intelligence (AI) and Corporate Governance: Systematic and Bibliometric Review. In: B. Singla, K. Shalender, & N. Singh (Eds.) *Navigating Data Science in the Age of AI: Exploring Possibilities of Generative Intelligence (Advances in Digital Technology and Data-Driven Business Practices)* (pp. 35-65). Emerald Publishing Limited. https://doi.org/10.1108/978-1-83608-432-720251003

19. Ferdman, H., Kravets, O., & Symonenko, L. (2025). Matrix of Innovative competencies in public administration within the ecosystem of sustainable development, national security, and financial efficiency. *Sapienza: International Journal of Interdisciplinary Studies*, *6*(2), e25022. https://doi.org/10.51798/sijis.v6i2.974

20. Guo, J., & Luo, G. (2023). How the tax burden affects the high-quality development of enterprises: the moderating effect based on the digital transformation of enterprises. *Journal of Shenzhen University (Humanities and Social Sciences Edition), 40*(04), 1–11.

21. Gupta, S.K., Nagar, N., & Srivastava, S. (2024). An Application of Structure Equation Modelling in Determinants of Customer Based Brand Equity (CBBE) in the Banking Area *Studies in Systems, Decision and Control*, 489, 399-411.

22. Holmström, J., & Hällgren, M. (2022). AI management beyond the hype: exploring the co-constitution of AI and organizational context. *AI & Society, 37*, 1575–1585. https://doi.org/10.1007/s00146-021-01249-2

23. Kichurchak, M., Mishchuk, H., & Bilan, Y. (2024). Examining Tertiary Education Amid the War in Ukraine: A Synthetic Control Approach. *European Journal of Interdisciplinary Studies, 16*(2). DOI: https://doi.org/10.24818/ejis.2024.13

24. Kim-Schmid, J., & Raveendhran, R. (2022, October 13). Where AI can – and can't – help talent management. *Harvard Business Review*. https://hbr.org/2022/10/where-ai-can-and-cant-help-talent-management

25. Kwasek, A., Kocot, M., Kovot, D., Maciaszczyk, M. (2024). The Role of Artificial Intelligence in Agile Organization Management. *European Research Studies Journal, XXVII*(Issue 2), 118-130. http://dx.doi.org/10.35808/ersj/3374

26. Maidaniuk, S., Petrukha, N., & Makarevych, O. (2025). Circular Economic Concept: Contribution To Macroeconomic Growth. *International Journal of Ecosystems and Ecology Science (IJEES).* Vol. 15 (3): 127-136. DOI: 10.31407/ijees15.317

27. Mertens, F. (2023). The use of artificial intelligence in corporate decision-making at board level: A preliminary legal analysis. *WP 2023-01*. Universiteir Gent, Financial Law Institute.

28. Mykolaichuk, M., Petrukha, N., & Hudenko, B. (2025). Conceptual principles of analysis and forecasting threats to national security in modern conditions. *Sapienza: International Journal of Interdisciplinary Studies*, *6*(2), e25029. https://doi.org/10.51798/sijis.v6i2.985

29. Nekhai, V., Melnyk, Y., & Bilyk, O. (2024). Economic Consequences of Geopolitical Conflicts for the Development of Territorial Communities in the Context of Economic and National Security of Ukraine. *Economic Affairs (New Delhi)*, 69 (1), 551-563.

30. Niu, Y., Wen, W., Wang, S., et al. (2023). Breaking barriers to innovation: The power of digital transformation. *Finance Research Letters, 51*, 103457.

31. Ortina, G., Zayats, D., & Karpa, M. (2023). Economic Efficiency of Public Administration in the Field of Digital Development. *Economic Affairs (New Delh)*, 68(3), 1543-1553.

32. Ouabouch, B., & Yahyaoui, T. (2025). Artificial intelligence and corporate governance: A review of recent literature. *International Journal of Strategic Management and Economic Studies, 4*(1), 52-66. http://dx.doi.org/10.5281/zenodo.14731346

33. Öztürk, D. (2021). What Does Artificial Intelligence Mean for Organizations? A Systematic Review of Organization Studies Research and a Way Forward. In: Bozkuş Kahyaoğlu, S. (eds) The Impact of Artificial Intelligence on Governance, Economics and Finance, Volume I. Accounting, Finance,

Open Access

Sustainability, Governance & Fraud: Theory and Application. Springer, Singapore. https://doi.org/10.1007/978-981-33-6811-8_14

34. Panasiuk, I., & Kuznietsova, O. (2020). Modelling and Simulation of the Thermal Performance of Metal Framed Walls. IEEE International Conference on Advanced Trends in Information Theory, ATIT 2019 – Proceedings, 309–312.

35. Pasichnyi, R., Bykova, A., & Nekhai, V. (2024). International migration of human resources in the conditions of geo-economic transformations as the main influence on the components of sustainable development of Ukraine in the context of national security. *Edelweiss Applied Science and Technology*, *8*(6), 1354–1365.

36. Pavlovskyi, O., Blikhar, M., & Karpa, M. (2024). International migration in the context of financial and economic security: The role of public administration in the development of national economy, education, and human capital. *Edelweiss Applied Science and Technology*, *8*(6), 1492–1503.

37. Petrukha, N., Kushneruk, O., & Mazur, A. (2023). Social Imperatives Of Public Finance: War Adaptation And Principles Of Post-War Recovery. *Financial and Credit Activity Problems of Theory and Practice,* 2023, 3(50), 358–371. DOI: 10.55643/fcaptp.3.50.2023.4031

38. Petrukha, N.M., & Petrukha, S.V. (2015). Efficiency evaluation of investment innovative projects based on public-private partnership in the agrarian sector of Ukrainian economy. *Actual Problems of Economics*, 2015, 171(9), страницы 141–148.

39. Piccoli, G., Grover, V., & Rodriguez, J. (2024). Digital transformation requires digital resource primacy: Clarification and future research directions. *The Journal of Strategic Information Systems, 33*(2).

40. Pirchalski, E., & Herndon, B. (2024, November 12). Tuning corporate governance for AI adoption. *NACD*. https://www.nacdonline.org/all-governance/governance-resources/governance-research/outlook-and-challenges/2025-governance-outlook/tuning-corporate-governance-for-ai-adoption/

41. Poliova, N., Polova, L., & Stepanenko, S. (2024). Organizational and economic principles of financial monitoring of national business entities in the context of national security. *Edelweiss Applied Science and Technology*, *8*(6), 1455–1466.

42. Pyatnychuk, I., Vengerskyi, O., & Pershko, L. (2024). The economic and legal dimension of the migration of intellectual and human capital as a threat to national security: The role and possibilities of public administration. *Edelweiss Applied Science and Technology*, *8*(6), 1481–1491.

43. Randive, S. (2024). Digital Transformation and Corporate Governance: Shaping the Future of Business in the Technological Era. *International Journal of Law, Management and Humanities, 7*(2), 3005-3017. https://doij.org/10.10000/IJLMH.117366

44. Ravlinko, Z., Petrukha, N., & Pawera, R. (2023). Formation, development and use of human capital: aspects of personnel security in a military conflict. *International Journal of Services Economics and Management*, 2023, 14(4), 452–466. DOI : 10.1504/IJSEM.2023.134125

45. Ray, N., Bag, S., & Chatterjee, T. (2024). *Contemporary Digital Transformation and Organizational Effectiveness in Business 4.0.* Apple Academic Press.

46. Ryzhakova, G., Petrukha, S., & Krupelnytska, O. (2022). Agro-Food Value Added Chains: Methodology, Technique and Architecture. *Financial and Credit Activity Problems of Theory and Practice*, 2022, 4(45), 385–395.
https://www.researchgate.net/publication/363283426_AGROPRODOVOLCI_LANCUGI_DODANOI_VARTOSTI_METODOLOGIA_TEHNIKA_TA_ARHITEKTURA

47. Saik, P., Lozynskyi, V., & Mamaykin, O. (2023). Managing The Process of Underground Coal Gasification. *Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu*, 2023, (6), pp. 25–30.

48. Serhieiev, V., Voronina, Y., & Akimov, O. (2025). Innovative competences within public administration landscape: sustainable development, financial efficiency and national security strengthening vectors. *Sapienza: International Journal of Interdisciplinary Studies*, *6*(1), e25017. https://doi.org/10.51798/sijis.v6i1.947

49. Sharma, R. (2024). *AI and the Boardroom: Insights into Governance, Strategy, and the Responsible Adoption of AI*. Apress.

50. Smeets, M. R., Roetzel, P. G., & Ostendorf, R. J. (2021). AI and its Opportunities for Decision-Making in Organizations: A Systematic Review of the Influencing Factors on the Intention to use AI. *Die Unternehmung, 75*(3), 432–460. https://www.jstor.org/stable/27284462

51. Suman, N., & Mahajan, R. (2024). Corporate governance in the age of digital transformation challenges and opportunities. *International Journal of Research Publication and Reviews, 5*(10), 2307-2311. https://ijrpr.com/uploads/V5ISSUE10/IJRPR34083.pdf

52. Sun, Y., & Guo, J. (2024). How does digital transformation affect corporate governance paradigms? A synthesis of the literature. *Financial Statistical Journal, 7*(2), 8081. https://doi.org/10.24294/fsj.v7i2.8081

53. Sydorchuk, O., Kharechko, D., & Khomenko, H. (2024). Competencies for sustainable financial and economic management: Their impact on human capital development and national security. *Edelweiss Applied Science and Technology*, *8*(6), 1445–1454.

Open Access

54. Tian, G., Li, B., & Cheng, Y. (2022). Does digital transformation matter for corporate risk-taking? *Finance Research Letters, 49*, 103107.

55. Timmons, A. C., Duong, J. B., Fiallo, N. S., Lee, T., Vo, H. P. Q., Ahle, M. W., Comer, J. S., Brewer, L. C., Frazier, S. L., & Chaspari, T. (2023). A call to action on assessing and mitigating bias in artificial intelligence applications for mental health. *Perspectives on Psychological Science, 18*(5), 1062–1096. https://doi.org/10.1177 /17456916221134490

56. Torre, F., Teigland, R., Engstam, L. (2020). *AI leadership for boards: The future of corporate governance*. Grin Verlag.

57. Ustahaliloğlu, M. K. (2025). Artificial intelligence in corporate governance. *Corporate Law & Governance Review, 7*(1), 123–134. https://doi.org/10.22495/clgrv7i1p11

58. Voronina, Y., Lopushynskyi, I., & Grechanyk, B. (2024). Economic And Environmental Component In The Field Of Sustainable Development Management. *Quality - Access to Success*. № 25 (201). 7–14. DOI: 10.47750/QAS/25.201.02

59. Wang, Y., Kung, L., & Byrd, T. A. (2018). Big data analytics: Understanding its capabilities and potential benefits for healthcare organizations. *Technological Forecasting and Social Change, 126*, 3–13. https://doi.org/10.1016 /j.techfore.2015.12.019

60. Xu, Y., Wang, L., Xiong, Y., et al. (2023). Does digital transformation foster corporate social responsibility? Evidence from Chinese mining industry. *Journal of Environmental Management, 344*, 118646.

61. Yang, P., Hao, X., Wang, L., et al. (2023). Moving toward sustainable development: the influence of digital transformation on corporate ESG performance. *Kybernetes, 53*(2), 669-687.

62. Yermachenko, V., Bondarenko, D., & Kalashnyk, N. (2023). Theory and Practice of Public Management of Smart Infrastructure in the Conditions of the Digital Society' Development: Socio-economic Aspects. *Economic Affairs (New Delh)*, 68(1), 617-633.

63. Zayats, D., Serohina, N., & Mazalov, A. (2024). Economic Aspects of Public Administration and Local Government in the Context of Ensuring National Security. *Economic Affairs (New Delh)*, 69(2), 979-988.

64. Zhao, X., & Cai, L. (2023). Digital transformation and corporate ESG: Evidence from China. *Finance Research Letters, 58*, 104310.

65. Zhumbei M, Apelt H, & Tsymbal I. (2025). Leveraging Gamification to Sustain Student Motivation and Emotional Resilience in Higher Education During Wartime: Case Studies from Ukraine. *LatIA [Internet]*. [cited 2025 Jul. 15];3:345. https://latia.ageditor.uy/index.php/latia/article/view/345; DOI: 10.62486/latia2025345

66. Zilinska, A., Avedyan, L., & Kyrychenko, Y. (2022). Efficiency In The Context Of Ensuring Sustainable Territorial Development. *Financial and Credit Activity: Problems of Theory and Practice*, 4 (45), 234-243.