CORPORATE GOVERNANCE AND ARTIFICIAL INTELLIGENCE IN THE BANKING INDUSTRY: CHALLENGES, RISKS AND OPPORTUNITIES

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Abstract

Especially in recent years, the financial services industry has been at the forefront of technological innovation. With the advent of artificial intelligence (AI) in the banking industry, banks are increasingly leveraging advanced algorithms and machine learning tools to improve efficiency, manage risk, and personalize customer experiences. From AI-powered chatbots and fraud detection systems to predictive credit scoring and algorithmic trading, AI has huge potential to transform banking.

The use of these innovative technologies can lead to a wide range of positive outcomes for bank management and, therefore, on its performance, including improved customer experience, greater operational efficiency, more efficient risk management and sophisticated data analysis. AI offers advanced solutions to mitigate these banking risks.

Predictive analytics processes large amounts of data efficiently, improving risk identification and decision-making. AI also improves compliance and fraud detection, ensuring regulatory compliance and asset protection (Lion & Ekefre, 2024).

However, the integration of AI into banking operations is accompanied by several problems, including data privacy issues, ethical conundrums, the need to comply with regulatory requirements, and the possibility of layoffs (Svoboda, 2023).

Therefore, this technological shift brings with it new and complex challenges in the field of corporate governance.

Indeed, the increasing diffusion of AI in different modes of organizational functioning has sparked a debate on its possible implications for corporate governance structures and decision-making processes, as well as on its overall transparency.

Traditional governance models, designed for human-centric decision-making, are often inadequate to address the opacity, autonomy and speed of AI-driven operations. Issues such as algorithmic bias, lack of transparency and unclear reporting requirements can undermine stakeholder trust and expose banks to reputational and regulatory risks. Such a technological shift implies that corporate governance frameworks in the banking sector must adapt to the growing influence of AI.

As AI becomes deeply embedded in the operations of bank institutions, its implications on bank governance are far-reaching. While AI offers improved efficiency, predictive power, and customer satisfaction, it also introduces complexities that challenge the traditional pillars of corporate governance: accountability, transparency, risk management, and ethical oversight.

AI applications such as credit scoring, loan approvals, and fraud detection often involve autonomous or semi-autonomous decision-making. These systems may rely on complex machine learning models that are not easily interpretable by humans (a phenomenon known as the "black box" problem). Therefore, boards and senior management are held accountable for decisions made by AI systems, yet may lack the technical knowledge to fully understand them.

The prospects of introducing AI into corporate governance can be assessed using several approaches: AI realism, in which AI is seen as an assistant that can simplify the work of members of governing bodies; AI enthusiasm, in which it is assumed that the AI director will replace members of governing bodies in the future; AI radicalism, in which the author evaluates the possibility of removing AI from human control and creating completely autonomous legal entities.

To prevent AI from being used indiscriminately, decision-making accountability must be redefined by introducing AI ethics committees, algorithm audit trails, and model governance frameworks to ensure human oversight and traceability.

AI models introduce model risk, which is the risk that model assumptions, inputs, or outputs are incorrect. In the banking industry, such flaws can lead to financial losses, regulatory fines, or reputational damage. AI-specific risks must be integrated into the bank's enterprise risk management frameworks. Internal audit and risk management teams need tools and expertise to assess models' accuracy, fairness, robustness, and resilience to cyber threats. Regulators increasingly expect banks to implement model risk management protocols and clearly document their use of AI for supervisory review.

AI-driven decisions can inadvertently introduce or reinforce bias, leading to discriminatory outcomes in areas such as lending, customer segmentation, and hiring. Such outcomes may conflict with a bank's stated values or again pose reputational risks.

Boards must expand their scope to include AI ethics in corporate governance charters. Implementation of fairness audits, diversity testing, and ethical impact assessments is increasingly becoming best practice. Appointment of chief AI ethics officers or AI risk officers is emerging among global banks to address these needs (Schäfer et al., 2022).

The integration of AI is not just an operational change, but a strategic transformation. Boards must understand how AI aligns with the bank's long-term goals, innovation agenda, and risk tolerance. Board composition may need to evolve to include technology and data science expertise, ensuring informed oversight of AI investments. AI strategy should be reviewed regularly at the board level, just like capital allocation, mergers and acquisitions, or cybersecurity. Boards must oversee AI talent development, ethical culture, and responsible innovation across the organization.

The integration of AI into the banking sector is reshaping traditional business models, decision-making processes, and customer interactions. While AI offers unprecedented efficiencies and capabilities, its adoption raises significant governance concerns.

In conclusion, there is a need for scholarly research to delve deeper into the intersection of corporate governance and AI within banking institutions, focusing on how governance frameworks need to evolve to ensure transparency, accountability, and ethical compliance in AI-driven environments. By analyzing real-world applications, regulatory responses, and governance challenges, a set of governance best practices can be identified to align AI innovation with strong corporate oversight. The findings can help understand whether banks need to develop strong AI governance structures that support sustainable and responsible use of the technology.

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