ARTIFICIAL INTELLIGENCE–DRIVEN CORPORATE GOVERNANCE: DATA-BASED DECISION MAKING AND RISK MANAGEMENT

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Annotation: This article examines the role of artificial intelligence in modern corporate governance, with a focus on data-based decision making and risk management. Artificial intelligence technologies such as machine learning, big data analytics, and predictive modeling significantly enhance the effectiveness of corporate boards and executive management. The study analyzes how AI improves transparency, reduces agency problems, strengthens internal control systems, and supports proactive risk identification. The findings indicate that AI-driven corporate governance increases organizational resilience and contributes to sustainable long-term value creation.

Keywords: artificial intelligence, corporate governance, data-driven decision making, risk management, digital transformation.

Annotatsiya: Ushbu maqolada zamonaviy korporativ boshqaruvda sun'iy intellektning o'rni, ayniqsa ma'lumotlarga asoslangan qaror qabul qilish va risklarni boshqarish masalalari tahlil qilinadi. Mashinaviy o'rganish, katta ma'lumotlar tahlili va prognozlash modellariga asoslangan sun'iy intellekt texnologiyalari boshqaruv samaradorligini oshiradi. Tadqiqot natijalari shuni ko'rsatadiki, sun'iy intellekt korporativ shaffoflikni kuchaytiradi, agentlik muammolarini kamaytiradi va barqaror rivojlanishni ta'minlaydi.

. **Kalit so‘zlar:** sun’iy intellekt, korporativ boshqaruv, ma’lumotlarga asoslangan qaror qabul qilish, risklarni boshqarish, raqamli transformatsiya.

Introduction. Corporate governance plays a critical role in ensuring accountability, transparency, and strategic direction within organizations. In the context of rapid digitalization and the growth of the data economy, traditional corporate governance mechanisms are increasingly challenged by complexity, uncertainty, and speed of change. Boards of directors and top management are required to process vast amounts of information, manage diverse stakeholder interests, and respond promptly to emerging risks. Under these conditions, artificial intelligence (AI) emerges as a transformative tool that fundamentally reshapes governance practices. Artificial intelligence enables organizations to move from intuition-based and retrospective decision making toward predictive, data-driven governance models. By leveraging machine learning, big data analytics, and automated decision-support systems, firms can improve oversight quality, reduce information asymmetry, and enhance strategic control. This article aims to analyze the role of artificial intelligence in corporate governance, focusing on data-based decision making and risk management as key pillars of effective governance in the digital economy. Artificial Intelligence in Corporate Governance: Artificial intelligence contributes to corporate governance by strengthening monitoring, control, and strategic oversight functions at both board and executive levels. AI-powered systems analyze financial statements, operational indicators, compliance reports, and external market data in real time, allowing governance bodies to identify inefficiencies and deviations at an early stage. Compared to traditional reporting systems, AI provides continuous rather than periodic monitoring, which significantly enhances governance responsiveness. One of the most important governance contributions of AI is the reduction of agency problems between shareholders and management. By improving transparency and information availability, AI-based analytics reduce opportunities for opportunistic

behavior and managerial manipulation. For example, anomaly detection algorithms can identify unusual financial transactions or performance patterns that may signal fraud or earnings management. As a result, corporate boards gain more objective and timely insights into organizational performance. In addition, artificial intelligence supports strategic governance by assisting boards in evaluating long-term strategic options. Scenario modeling and simulation tools enable governance actors to assess the potential outcomes of strategic decisions under different economic and competitive conditions. This strengthens the strategic role of corporate governance and aligns managerial actions with shareholder and stakeholder interests.

Data-Based Decision Making**:** Data-based decision making represents a central advantage of AI-driven corporate governance. Modern organizations generate large volumes of structured and unstructured data from internal operations, digital platforms, customers, and external environments. Artificial intelligence transforms these data into actionable knowledge by identifying patterns, correlations, and causal relationships that are difficult for humans to detect. Predictive analytics enables management to forecast financial performance, demand fluctuations, and operational risks with higher accuracy. In governance contexts, this allows boards to evaluate management proposals based on evidence rather than assumptions. AI-driven dashboards provide real-time performance indicators that support informed discussions and reduce decision-making biases. Furthermore, data-based decision making improves consistency and accountability within governance structures. When decisions are supported by transparent data models and documented analytical outputs, it becomes easier to justify strategic choices and evaluate outcomes. This enhances trust among shareholders, regulators, and other stakeholders. However, effective data-based governance requires high-quality data, robust data governance frameworks, and alignment between analytical outputs and organizational objectives. Risk Management and Internal Control: Risk management is

a fundamental component of effective corporate governance, particularly in volatile and uncertain environments. Artificial intelligence significantly enhances risk management by enabling early identification, assessment, and monitoring of diverse risk categories, including financial, operational, strategic, and cybersecurity risks. AI-based risk management systems integrate data from multiple sources to create comprehensive risk profiles. Machine learning models assess the probability and potential impact of risks, allowing organizations to prioritize mitigation efforts. For example, predictive models can identify early warning signals of financial distress, supply chain disruptions, or market instability. Artificial intelligence also strengthens internal control systems through continuous auditing and automated compliance monitoring. Algorithms can detect fraudulent transactions, control breaches, and policy violations in real time. This reduces reliance on manual controls and periodic audits, lowering costs while improving effectiveness. As a result, AI-driven risk management enhances organizational resilience and supports sustainable value creation. Challenges and Ethical Considerations: Despite its significant benefits, the application of artificial intelligence in corporate governance presents several challenges. One major concern is data quality and availability. Inaccurate or biased data can lead to flawed analytical outputs and suboptimal decisions. Therefore, strong data governance frameworks are essential to ensure reliability and integrity. Another challenge relates to algorithmic transparency and accountability. Many AI models operate as "black boxes," making it difficult for governance actors to understand how decisions are generated. This raises ethical and legal concerns, particularly in regulated industries. Corporate governance frameworks must therefore incorporate ethical guidelines, human oversight mechanisms, and clear accountability structures for AI-driven decisions. Additionally, the successful integration of AI into governance requires investment in human capital. Board members and executives must develop digital competencies to effectively interpret AI-generated

insights and align them with strategic goals. Without such capabilities, the potential benefits of AI-driven governance may not be fully realized.

Conclusion: Artificial intelligence fundamentally transforms corporate governance by enabling data-based decision making and advanced risk management. Organizations that successfully integrate AI into their governance structures achieve higher transparency, improved control mechanisms, and greater strategic agility. AI-driven governance reduces agency problems, enhances risk oversight, and supports proactive strategic decision making. However, the effectiveness of AI in corporate governance depends on complementary factors such as data quality, ethical governance frameworks, and human competencies. Firms must balance technological innovation with responsibility and accountability to ensure sustainable outcomes. In the context of the digital economy, artificial intelligence–driven corporate governance represents a critical determinant of long-term competitiveness and organizational resilience. Artificial intelligence significantly transforms corporate governance by enabling data-based decision making and advanced risk management. Organizations that successfully integrate AI into their governance structures achieve higher transparency, improved control, and greater strategic agility. However, realizing these benefits requires robust data governance, ethical oversight, and alignment between technological capabilities and organizational goals. AI-driven corporate governance thus represents a key factor in achieving sustainable competitive advantage in the digital economy.

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