ABSTRACT

This study aims to analyze the integration of Artificial Intelligence (AI) and blockchain in enhancing the transparency of Environmental, Social, and Governance (ESG) reporting. Using a Systematic Literature Review (SLR) approach across relevant international studies, the findings reveal that the integration of AI and Blockchain can improve the reliability, accuracy, and accountability of ESG data through automated analysis and transparent, immutable data recording. AI plays a role in rapidly and intelligently collecting and processing ESG data, while blockchain ensures data security and authenticity through its distributed ledger system. However, the implementation of this integration also faces several challenges, including high adoption costs, organizational resistance, limited technical expertise, and regulatory barriers. This study contributes by providing a comprehensive understanding of the potential and limitations of integrating these two technologies, while offering direction for future research and policy development aimed at strengthening transparency and governance in ESG reporting.

Keywords: Artificial Intelligence, Blockchain, ESG Reporting, Transparency, Systematic Literature Review.