ABSTRACT

This study aims to understand the importance of applying artificial intelligence and blockchain technology to detect fraud in the audit process based on published research articles. It also captures empirical research related to artificial intelligence and blockchain and seeks to identify their differences, thereby serving as a guide for future empirical research. The study uses the systematic literature review (SLR) method to analyze various articles published in the Scopus database within the publication range of 2020-2024. The articles were filtered using the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) reporting guidelines. A total of twenty articles were synthesized to answer the research questions. The analysis results of this study indicate that the application of artificial intelligence and blockchain technology had a positive impact on detecting fraud in the audit process. Artificial intelligence improves the accuracy of automatic fraud detection, while blockchain provides transparent and valid data. However, there are still potential risks and challenges in applying artificial intelligence and blockchain technology to detect fraud in the audit process. Factors such as information security, information technology, and human resources influence auditors in adopting artificial intelligence and blockchain technology. This study is expected to provide substantial benefits to auditors by raising awareness for further professional skill development and recognizing the impact of technology.

Keywords: Artificial Intelligence, Blockchain, Machine Learning, Natural Language Processing, Triple-Entry Accounting, Smart Contract, Fraud Detection, SLR