

BLOCKCHAIN IN EDUCATION: POTENCIALS AND CHALLENGES IN ACADEMIC RECORDS AND CERTIFICATIONS

Erna Widiasari *¹

Universitas Muhammadiyah Surakarta
q100230002@student.ums.ac.id

Sumardi

Universitas Muhammadiyah Surakarta
sumardi@ums.ac.id

Ahmad Muhibbin

Universitas Muhammadiyah Surakarta
am215@ums.ac.id

Iyad Abdallah Al- Shreifeen

Taibah University, Saudi Arabia
iyads80@yahoo.com

Abstract

Blockchain in education in today's digital age has paved the way for innovative technologies that have the potential to revolutionize various aspects of life, including the education sector. Blockchain, as one of the leading technological breakthroughs, offers the possibility to transform the way academic recording and certification are done in the education system. This article aims to identify and analyze potential applications of blockchain in education, in relation to academic recording and certification management, as well as highlighting the key challenges to be addressed for successful implementation. The research method used is literature using the theory in accordance with the context of research. Research findings suggest that the potential for blockchain use in education lies mainly in its capacity to provide a safe, transparent, and irrevocable way to store academic records. Using this technology, educational institutions can guarantee the integrity and authenticity of academic documents, facilitate verification processes by third parties, and improve operational efficiency. Furthermore, the adoption of blockchain can strengthen the recognition of academic credentials globally and support the development of new teaching techniques through the reliability and security it provides. However, the adoption of blockchain in the education sector also poses a series of challenges. These include technical barriers related to the necessary infrastructure development, training needs for human resources, issues of privacy and compliance with existing regulations, as well as significant initial costs for implementation. In addition, acceptance from various stakeholders in the education sector should be considered to ensure smooth adoption of technology. To address these challenges and maximize the potential

¹ Correspondence author