

Risk probability in blockchain technology

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Abstract

Blockchain technology has been gaining significant attention in recent years, due to its ability to provide a secure and decentralized way of managing digital transactions. However, like any new technology, it also poses a certain level of risk. One of the key risk factors associated with blockchain technology is the probability of a security breach. The decentralized nature of blockchain technology makes it less susceptible to traditional cyber-attacks, such as hacking. However, the decentralized network also means that there is no central authority to monitor and protect the system. This makes it more vulnerable to malicious actors who may try to exploit vulnerabilities in the system. Additionally, the use of smart contracts, which are self-executing contracts with the terms of the agreement between buyer and seller being directly written into lines of code, introduces new types of risk such as bugs and programming errors that could lead to unintended consequences. Another risk associated with blockchain technology is the risk of regulatory non-compliance. Blockchain technology operates on a global scale, and different countries have different regulations regarding its use. Companies that operate in multiple jurisdictions

*This research was supported by the National Research, Development and Innovation Fund of Hungary, financed under the Thematic Excellence Programme TKP2021-NVA-29 (National Challenges Subprogramme) funding scheme, and by the COST Action CA19130 - "Fintech and Artificial Intelligence in Finance Towards a transparent financial industry" (FinAI)

may find it difficult to comply with all relevant regulations, which could lead to legal issues. Another risk is the lack of standardization in the blockchain industry. Without a standard, it can be difficult for companies to know which blockchain platform to choose and how to integrate it into their existing systems. This can lead to inefficiencies and added costs. Finally, the risk of the adoption of blockchain technology is also a concern. Even though blockchain technology has the potential to revolutionize various industries, it is still in its early stages of development and widespread adoption may take time. This means that companies that invest in blockchain technology may not see a return on their investment for a long time. Blockchain technology has the potential to revolutionize the way we manage digital transactions, but it also poses a certain level of risk. These risks include security breaches, regulatory non-compliance, lack of standardization, and adoption risk. It is important for companies to carefully consider these risks before investing in blockchain technology. The paper will focus on analyzing the risk from a functional programming perspective, for this the use of MARLOWE is important to showcase the probability of the risk in the blockchain.

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