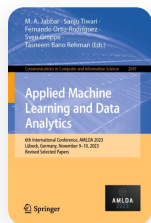


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Blockchain – A Secure and Transparent Solution to Detect Counterfeit Products

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Abstract

Counterfeit products have had a massive impact on manufacturing industries in the past couple of years. This is affecting the company's name, sales, and profit. Blockchain innovation has acquired an interest in the course recently. The most important issue about this is currency exchange, but its application is not restricted to only Digital currency. This technology has the potential to influence different business sectors. Blockchain has brought high transparency and ease in how transactions

are dealt with. Blockchain technology can be used to identify real products from fake ones. Using this technology, customers or users need not rely on third-party services for the product's safety. The proposed system's Quick Response (QR) code provides a robust technique to stop counterfeiting the products. Fake products can be detected using a Quick Response scanner, where a QR code is attached. This QR code is linked to the Blockchain network to identify the fake product. A block will be created to store the product-related information and its QR code, like product details, and generate a unique code for each block in the blockchain database. The user uploads and then compares the unique code of the product he intends to purchase with that stored in the blockchain network. If the code matches the code that the manufacturer generated, it will notify the customer, saying the QR code is matched; otherwise, it will notify the customer that the QR code is not matched and the product is fake.

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