A Block Chain based Management System for Detecting Counterfeit Product in Supply Chain

ABSTRACT:

In recent years, Counterfeit goods play a vital role in product manufacturing industries. This Phenomenon affects the sales and profit of the companies. To ensure the identification of real products throughout the supply chain, a functional block chain technology used for preventing product counterfeiting. By using a block chain technology, consumers do not need to rely on the trusted third parties to know the source of the purchased product safely. Any application that uses block chain technology as a basic framework ensures that the data content is 'tamper resistant'. In view of the fact that a block chain is the decentralized, distributed and digital ledger that stores transactional records known as blocks of the public in several databases known as chain across many networks. Therefore, any involved block cannot be changed in advance, without changing all subsequent block. In this paper, counterfeit products are detected using barcode reader, where a barcode of the product linked to a Block Chain Based Management (BCBM) system. So the proposed system may be used to store product details and unique code of that product as blocks in database. It collects the unique code from the customer and compares the code against entries in block chain database. If the code matches, it will give notification to the customer, otherwise it gets information from the customer about where they bought the product to detect counterfeit product manufacturer.