



Chapter 3

Role of Blockchain Technology in Building Transparent Supply Chain Management

Ram Singh

 <https://orcid.org/0000-0002-6565-3091>
Quantum University, India

Rohit Bansal

 <https://orcid.org/0000-0001-7072-5005>
Vaish Engineering College, India

Sachin Chauhan

Quantum University, India

ABSTRACT

The chapter's fundamental goal is to discover and feature the job of blockchain technology in inventory networks including its benefits and impediments. The idea of the examination depends on auxiliary information and data. The necessary information and data have been gathered from different sites, magazines, and media reports. Supply affixes the need to confront difficulties as far as quality, cost, and speed. These boundaries can be accomplished effectively with blockchain in the inventory network of the executives.

INTRODUCTION

“Blockchain can possibly develop to be the bedrock of the overall record-keeping frameworks yet was dispatched only 10 years prior, it was made by the obscure people behind the online money cash Bitcoin, under the pen name ‘Satoshi Nakamoto’ Blockchain can be the foundation of the digitized inventory network”. It really helps the clients and organizations track their item from the hour of pickup to the time it arrives at the end customer. Blockchain is for all time saved computerized record, which is exceptionally protected to impart to gatherings and make exchanges. Blockchain was first brought into

DOI: 10.4018/978-1-7998-8697-6.ch003

monetary administrations for proficient and secure installments, economic alliance, and so forth as of late, Manufacturing, different enterprises like shopper products and retail are analyzing how to go into blockchain applications (Paliwal, V., Chandra, S., & Sharma, S. 2020). The chapter's fundamental goal is to discover and feature the job of Blockchain Technology in inventory network the board and its benefits and impediments. The idea of the examination is engaging, which depends on auxiliary information and data. The necessary information and data have been gathered from different sites, diaries, magazines, and media reports. Endeavour blockchain innovation can change the inventory network with these three use cases: Traceability, Transparency and Tradability.

Traceability: It works on functional effectiveness by planning and imagining "Venture Supply Chains, a developing number of customers request sourcing data about the items they purchase" (Casino, F., Dasaklis, T. K., & Patsakis, C. 2019). Blockchain assists associations with understanding their inventory network and draw in buyers with genuine, unquestionable, and changeless information.

Transparency: It assembles trust by catching key information focuses, like affirmations and cases, and afterward gives open admittance to this information freely. Once enlisted on the Ethereum blockchain, its credibility can be confirmed by outsider attestors and "the data can be refreshed and approved continuously" (Chanson, M. 2019).

Tradability: It is a remarkable blockchain offering that rethinks the traditional commercial center idea. Utilizing blockchain, one may "tokenize" a resource by parting an article into shares that carefully address possession (Dwivedi, Y. K., et. 2019). Like how a stock trade permits exchanging of an organization's offers, this fragmentary proprietorship permits tokens to address the worth of an investor's stake of a given item, these tokens are tradable, and clients can move possession without the actual resource evolving hands.

BLOCKCHAIN TECHNOLOGY

Blockchain is a typical, super durable record that works with the technique engaged with recording trades and following assets in a business association (Egels-Zandén, N., Hulthén, K., & Wulff, G. 2015). An asset can be considerable "a house, vehicle, cash, and land" or hypothetical "authorized advancement, licenses, copyrights, stamping", fundamentally anything of huge worth can be followed and traded on a blockchain network, lessening risk and diminishing costs for all notwithstanding (Yang, H., & Tate, M. 2012). Business runs on information. The speedier it's gotten and exact should it is however much as could reasonably be expected. Blockchain is incredible for passing on that information since it gives speedy, shared and absolutely clear information set aside on a super durable record that can be gotten to only by approval network people, a blockchain association can follow orders, portions, records, creation, and extensively more.

ELEMENTS OF BLOCKCHAIN TECHNOLOGY

Blockchain is a game plan of recording information with the end goal that makes it problematic or hard to change, hack, or cheat the system, it is essentially an automated record of trades that is duplicated and coursed across the entire association of PC structures on the blockchain. Each square in the chain contains different trades, and each time another trade occurs on the blockchain, a record of that trade

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/role-of-blockchain-technology-in-building-transparent-supply-chain-management/297157

Related Content

Conceptual Modeling for XML: A Myth or a Reality

Sriram Mohanand Arijit Sengupta (2006). *Database Modeling for Industrial Data Management: Emerging Technologies and Applications* (pp. 293-322).

www.irma-international.org/chapter/conceptual-modeling-xml/7896

Using a Semiotic Framework for a Comparative Study of Ontology Languages and Tools

Xiaomeng Suand Lars Ilbrekke (2005). *Information Modeling Methods and Methodologies: Advanced Topics in Database Research* (pp. 278-299).

www.irma-international.org/chapter/using-semiotic-framework-comparative-study/23019

An Overview of Fuzzy Approaches to Flexible Database Querying

Slawomir Zadrozny, Guy de Tré, Rita de Caluweand Janusz Kacprzyk (2008). *Handbook of Research on Fuzzy Information Processing in Databases* (pp. 34-54).

www.irma-international.org/chapter/overview-fuzzy-approaches-flexible-database/20348

Antecedents of Online Game Dependency: The Implications of Multimedia Realism and Uses and Gratifications Theory

Kaunchin Chen, Jengchung V. Chenand William H. Ross (2010). *Journal of Database Management* (pp. 69-99).

www.irma-international.org/article/antecedents-online-game-dependency/42086

A Scalable Algorithm for One-to-One, Onto, and Partial Schema Matching with Uninterpreted Column Names and Column Values

Boris Rabinovichand Mark Last (2014). *Journal of Database Management* (pp. 1-16).

www.irma-international.org/article/a-scalable-algorithm-for-one-to-one-onto-and-partial-schema-matching-with-uninterpreted-column-names-and-column-values/138623