Chapter 8

Logistics Industry in the Context of the Blockchain Technology

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ABSTRACT

Blockchain technology has garnered considerable interest from academics and businesses. One of the primary reasons to keep track of customer satisfaction and adoption is that customers don't use the product or service enough. Identifying the factors that influence the use and adoption of blockchain technologies will help solve the adoption problems effectively. Many significant firms, like Google, Amazon, and others, will embrace blockchain technology. It will indeed be found in the future and revolutionise logistics and transportation. Even though the advantages of blockchain technology have been well studied in the financial sector, using blockchain technology can help decrease significant logistical challenges such as border delays, product damage, errors, and multiple data entry.

INTRODUCTION

Logistics are becoming more complex as more parties participate directly or indirectly in supply chains. Communication and end-to-end visibility are getting more and more

challenging because of this complexity, leading to inefficient logistical processes. All parties in the supply chain have raised their standards for transparency, dependability, and customer service simultaneously. The blockchain is becoming more popular as a potential remedy for these problems. Although blockchain technology has a far more comprehensive range of uses, cryptocurrencies are where it is most employed and related. A distributed ledger (book) called blockchain has several applications. Contracts, cargo tracking, and financial transactions are only a few applications for it (AlShamsi, Yli-Huumo, J.,, 2017). A product may undergo more than 31 inspections by organisms while in transit; adding all of this up is very expensive. In addition, there has always been a tonne of paperwork to finish. The end-to-end transportation business is already inefficient, and the paperwork process worsens it (Berke, A, Moller, A.P., 2019). The absence of a single source of truth and a convoluted process fundamentally slows down the logistic process.

A decentralized organization must carry out all transactions, which also acts as a hub for process improvement and verification. Due to blockchain's digital nature, all documentation must be completed online, making the data accessible to everyone, anywhere (Mattila, J., Edvard Tijan et all., Yassine Issaoui, 2019). Making decisions with the aid of blockchain tracking can result in a more satisfying service for the customer. In this article, blockchain technology in logistics is highlighted, along with the future of blockchain technology and its uses. Overview of Blockchain Figure 1.

Blockchain helps with the tracing and verification of multi-step transactions that need to be able to be traced and verified. Blockchains reduce compliance expenses and quicken the processing of data transfers. The increased security consumers receive when conducting transactions is perhaps the most valuable benefit of utilizing blockchain technology. This function enhances trust between customers and business partners, safeguards personal information, and makes transaction tracing

Figure 1. Overview of blockchain
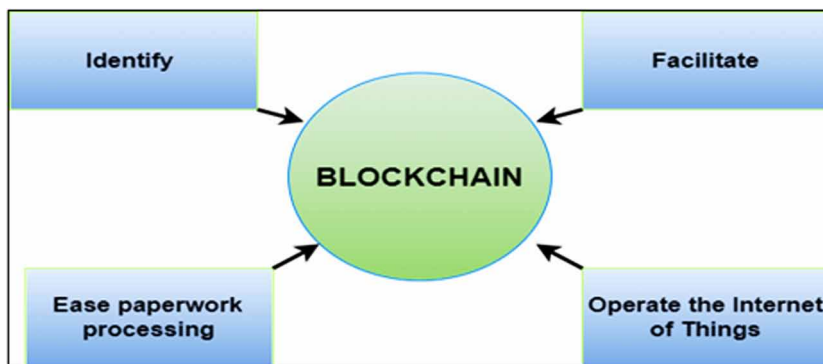
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