

## BLOCKCHAIN TECHNOLOGY IN LOGISTICS

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Using of the blockchain system in logistics now is very important and relevance.

In the past century, supply chains were relatively simple, as trade was mainly within regions. Over time, the transition rail to automobile transport and the computerization of logistics led to a marked shift in focus in supply chain management. Blockchain in logistics improves the reliability and transparency of the supply chain. It helps to avoid discrepancies in documentation. For example, if the carrier and the consignee interpret the delivery time differently, the “on-time” delivery indicator suffers.

Depending on the product, a modern supply chain can consist of tens or even hundreds of stages and stretch over thousands of kilometers across the world. Transportation is managed by dozens of specialists who have to work with tons of documents, and logistic processes are sometimes delayed for weeks and months. Supply chains are becoming more complex, and there is less and less transparency in communication between its participants, because of this, customers do not fully understand the value of the product. In addition, if there are suspicions of bad faith of one of the participants, it is also not easy to detect violations. With blockchain, this can be avoided, since all participants in the supply chain have access to the same version of all shipping documents. In addition, all data exchange is recorded in blocks, it is impossible to delete or change this information, therefore, in case of disagreement; it is much easier to find the root of the problem.

Main purpose of the study is impact of the implementation of the blockchain system in logistics.

According to a study conducted in the US logistics market, freight carriers reach only about 50% of the initial value of freight, and sometimes even less. A chain may consist of three or more intermediaries. Also, it is very problematic to solve problems on cargo. In cases where they arise and need the help of the original customer, the communication takes place through the same intermediaries. And if there are a lot of them in the chain, then sometimes it takes a lot of time to solve a quite common problem. Using a supply chain, which is based on blockchain, the intermediaries will not exist. The chain will consist of the recipient, the sender and the carrier. No middlemen.

What is needed for this? First of all, we need support from the government. A team of IT specialists is also needed to launch a new board, like DAT and related software.

One can only imagine how effective it would be for carriers of freight that could receive more, and the shipper to spend less. Both the shipper and the receiver could track each step of transportation. For example, if a truck came from another company, not a carrier company, this is immediately displayed on the network.

In this way. You can see a noticeable benefit of introducing this system for all participants in the supply chain. In addition to the many advantages, there are also disadvantages. One of the most basic is the complexity of implementation. Not even from a technical point, but from a point of popularity. To convince drivers to switch to this system will be very problematic. For this, government support is required.

Summing up, we can say that today the use of the blockchain system in logistics has great prospects. The receiver of the goods will be confident in its quality, because it will know exactly where it is produced. The shipper will be sure that his cargo was not brokered. In addition, the carrier will receive 100% of the initially allocated funds for the transportation of cargo.