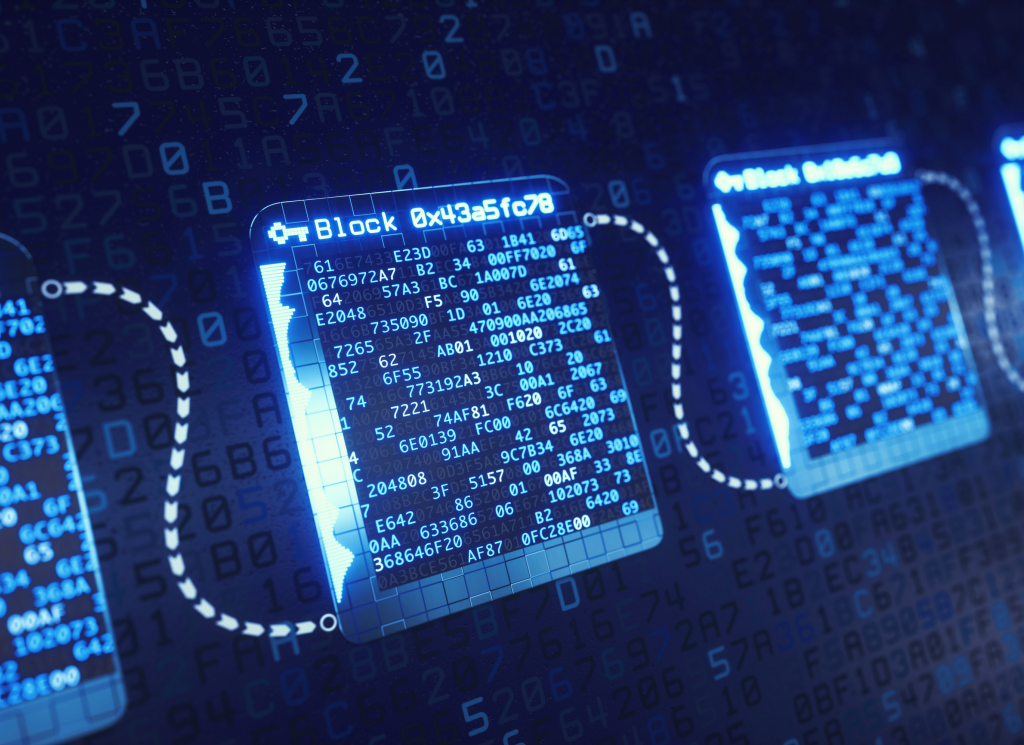


Blockchain Beyond  
Cryptocurrencies and NFTs  
a wave of a renaissance in the financial sectors.



## Blockchain transforming supply chain

Have you invested in bitcoin? Are NFTs and cryptocurrencies the future of trade markets? Many of us have pondered upon these questions. While people are curious about the future of cryptocurrencies and NFTs, do we have a grasp of the technology behind it? Cryptocurrency and NFTs have triggered a wave of a renaissance in the financial sectors. With questions regarding the legitimacy of crypto and NFTs, we are thinking of new regulations. Before you invest your hard-earned money in NFTs and crypto, you have the right to be sceptical. It is natural to wonder if the NFT bubble will burst and your money will be lost in the fad. You may want to take your time before jumping on the cryptocurrencies and NFTs bandwagon. But the shaky trade comes with a solid technology: Blockchain.

A by-product of cryptocurrencies and NFTs in the implementation of blockchain in the financial sector. It was only in 2015 that NASDAQ and OMX Group Inc. tied up with Chain to introduce blockchain technology in the share market. Today many international banks across the globe are developing their proof of concepts with blockchain technology.

# Basics of Blockchain

By Acviss

**Blocks:** Blockchain is a distributed digital ledger. Every transaction on a blockchain is recorded on a block. So each block is a unit of information.

**A distributed ledger:** The blocks are across multiple copies of a digital ledger.

**Nodes:** The ledger is distributed over a network of computers called nodes.

**Tokens:** Just like in Bitcoin, a blockchain has the concept of tokens. All assets in the blockchain have a digital token. The token is transferred from one participant to the next at each step of the transaction. This ensures that every step in the transaction is recorded in the blockchain. If you look at a traditional financial ledger, an entry is made only if there

is an exchange of products. But let's say a retailer generates a product order for the supplier. In this scenario, there is no real exchange happening. So a traditional ledger will show no entry. But with a blockchain, the retailer will record the digital token for the order. Once the supplier confirms that the order has been received, it gets recorded on the blockchain. Recording every step in the transaction has business value for all stakeholders. Let's imagine a scenario wherein the suppliers need to raise working capital from a bank. The records on the supply chain aid banks in making lending decisions. The bank can now verify that the supplier has truly received an order. Also, once the loan gets approved, it is recorded on the same blockchain.

## Blockchain beyond cryptocurrencies and NFTs?

When was the first time you heard of blockchain technology? For most people, it was Bitcoin and other cryptocurrencies that introduced them to the blockchain. Most people still are wondering if they need to understand this 'blockchain thing.' Arguably, many see it as the technology behind bitcoin. After all, Bitcoin needs a technology that ensures payments are recorded transparently on a ledger. Blockchain is a set of distributed data sets. An important part of a bitcoin transaction is verification. Once someone requests a transaction a network of computers called nodes to validate the transaction and status of the user.

These nodes use algorithms for verification. Codifying using algorithms is the basis of blockchain. Thus, many people think of cryptocurrencies and NFTs while understanding the blockchain. But blockchain is the primary technology used to power cryptocurrencies and NFTs. While the financial sector has obvious applications for blockchain, the technology has a promising future in many sectors. One such area in which blockchain has completely transformed is supply chain management.

## The woes of traditional supply chains in the global economy:

A ship got stuck in the Suez Canal and brought the global supply chain to a staggering halt. We are not saying that supply chain disruptions can be done away with. But the post COVID world has highlighted the importance and dependency of an efficient and transparent supply chain.

## The numbers speak for themselves!

- The global supply chain market share stood at USD 253 million in 2020
- By 2025, the supply chain market size is projected to reach USD 9852.91 million
- Reports show that supply chain disruptions can cause a loss of about 62% in revenue
- The instances of disruptions in the supply chain have increased by 14% between 2019-2020.

The scale and complexity of global trade have seen an upward trend. So securing the supply chain is vital for the safety of the products. As the product or package changes hands, the chances of counterfeit and adulteration also increase.

## Does blockchain simplify the supply chain?

Blockchain enables every stakeholder to verify blocks of information. Each block in the blockchain has a hash of encrypted data. Anyone with the same set of information can add to the blockchain and verify the data. Basically, with a key, every stakeholder can update the blockchain and verify product-related information. So blockchain secures a complex supply chain.



## Blockchain verifies if you who you say you are!

Traditional supply chains lack transparency. In the era of e-commerce, how can customers know the value of the product? Often, it is a blind and dangerous trust fall for buyers who know little product-related information. Blockchain expands the visibility of the product journey. Traditional blockchains follow the one up and one down rule in terms of visibility. The product does not have a story or origin when it reaches the customer.

What can you do if a product is counterfeit? How can brands plug in the gaps in the supply chain?

To plug in the gaps, brands need to identify the loopholes in the supply chain. With a blockchain, the ledger is visible to all stakeholders. It reduces confusion and aids in the investigation of counterfeiting.





## ARE COMPANIES USING BLOCKCHAIN IN THEIR SUPPLY CHAIN?

*THE NUMBERS SHOW A PROMISING FUTURE FOR BLOCKCHAIN*

- Have you recently checked LinkedIn job postings? The number of blockchain-related jobs requirements has tripled in just a year!
- If you put together all the banks using blockchain, the benefits are too hard to ignore. Globally, banks have saved 8 to 12 billion USD annually by using blockchain in business
- The global market for blockchain is expected to be worth 20 billion USD by 2024

Blockchain has practical advantages and a promising future. What once started as a technology for crypto, has widespread applications today. With online payments now becoming common, transparent and efficient transfer of funds is vital for the supply chain. Blockchain removes the hassles of bank charges and allows the transfer of money anywhere and

anytime. Did you know that Tomcar, an Australian vehicle manufacturer pays its suppliers through Bitcoin?

Walmart is no stranger to blockchain. It uses blockchain technology to enable smart tracking of its pork imported from China. It makes sense because with blockchain one can get information about the expiry, storage, and processing conditions of every piece of meat. BHP, the largest mining firm, has embraced blockchain for record-keeping and vendor management. Diamond giant De-Beers has found a novel solution to the issue of 'blood diamonds.' De-Beers uses blockchain technology to track and trace its precious stones. This also ensures that no customer is duped into buying a fake diamond.

## **BUILDING TRANSPARENCY IN THE SUPPLY CHAIN TO BUILD TRUST**

Ethical brands understand the importance of tackling counterfeit products. These brands care about the safety and trust of their customers. You may be conducting inventory audits regularly. ERP systems have come a long way. But traditional audits do not keep a record on a real-time basis. ERP systems are necessary but not enough. Does your ERP system access the type of journal entry that corresponds to every inventory transaction? Tracking orders, payments, and shipments for thousands of transactions daily are messy. But with blockchain, you can keep a record of every transaction. Smart contracts ensure that every stakeholder completes the contractual obligation. No player can overwrite a single block without changing every block on the shared ledger. So what does it mean for counterfeit and substandard products?

You can trace fake products to their source! The system flags disruptions in the supply chain on a real-time basis.

## **DOES A SECURE BLOCKCHAIN RECORD MEAN THAT THERE IS NO CONTAMINATION OF THE PHYSICAL PRODUCT?**

Incorrect tagging, scanning, or data entry can bring in human errors in the supply chain. Despite blockchain, errors or corrupt players can introduce counterfeit products in the supply chain. So companies are using physical audits and distributed applications to flag possible errors. When used with IoT, blockchain enables end-to-end tracking with limited human intervention. So even if a counterfeit enters the supply chain, it can be detected on a real-time basis and tracked to its source.

While blockchain has its own set of issues, it comes with a promising future. It has already transformed the supply chain across sectors. As technology becomes more pervasive, not understanding blockchain is not an option. If you still think blockchain is a crypto thing, give us a call! It will be a wake-up call!





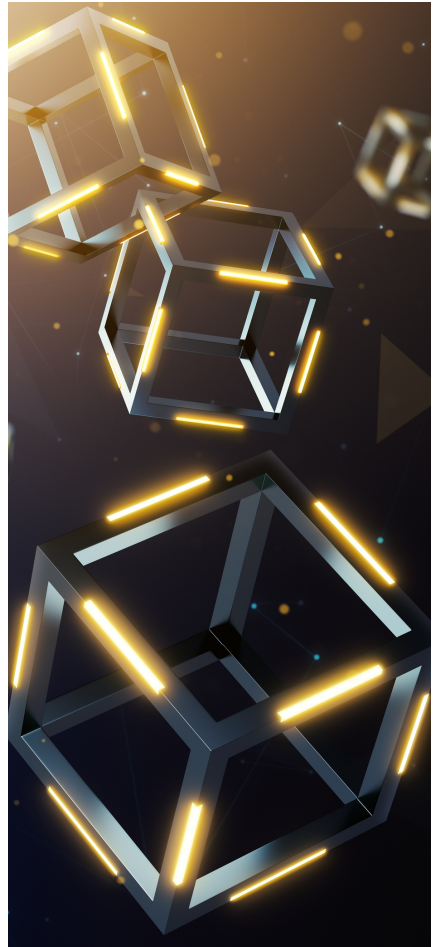
# The Benefits of Using Blockchain Technology in Supply Chain

## Primary potential benefits:

- Blockchain enables the smart and efficient traceability of products and materials at each step in the transaction. This aids not just in the supply chain but also in quality control.
- Since blockchain improves transparency and visibility, it can be used to plug in the gaps in the supply chain. Thus it aids in securing the supply chain against the grey or counterfeit market.
- It saves on the administration cost and paperwork.
- It improves compliance amongst contractors and vendors. Today, many brands outsource their manufacturing.
- Ensuring control and compliance over their manufacturing processes is important for quality controls.

## Secondary potential benefits:

- Brand image and customer loyalty depend on the quality of the product. The materials used in manufacturing and the necessary certifications cannot be manipulated easily on a blockchain. While blockchain is not the only solution, it offers greater transparency with ease.
- Blockchain engages all the stakeholders.
- The transparency in record-keeping protects the brands from public relations risk and malpractice suits.
- When every step in the transaction is on record that cannot be erased, the data gains credibility and public trust.



Thanks for  
Reading!

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