



# CASE STUDY OF BLOCKCHAIN IN FINANCE SECTOR





## What is a finance sector?

The Finance sector as a whole consists of banks, insurance company, investment company, real estate, etc. in short, it is a sector which facilitates the movement of funds.

## What are the major drawbacks of this system?

- Lack of coordination which eventually results in a slower processing time.
- The lack of transparency
- The centralized system
- The monopolistic position held by some companies in this sector
- And certain other problems which depends on person to person.

## How blockchain can solve the major problems in this sector?

•First the blockchain can eliminate the need of excessive intermediate which results in un coordinated work which ends up taking more time.

**Eg: Case 1-** If you want to send 100\$ to your friend in UK, you need to first go to bank and fill the international remittance form, and wait for at least 2 days until that particular 100\$ could reach your friend in UK and not only that you will be charge with a high fee of 6-7\$ for a single transaction of 100\$ and your friend in UK will at most receive around 93\$ and even if you use PayPal or any other online payment app you still have to pay around 4-5\$.

**Case 2-** If you use our token for a sending 100\$ worth of token to your friend in UK, you just have to send it to your friend's **wal-**



let address which will take around 2-3 seconds to get credited in your friend's wallet and you will pay a fee of 0.2 USD to 0.4 USD at most.

### **If we analyze the two cases,**

•First, the time taken reduced from 2 days to 2-3 seconds, **5759900% decrease in time taken.**

•Secondly, the fees paid via international remittance reduced from 6 - 7\$ to 0.2 - 0.3\$, **2233.34% decrease in fees paid.**

The blockchain also ensures security and transparency among the stakeholders and the consumers using public and private keys to the blockchain network and every transaction on blockchain is signed and encrypted by cryptography which makes it less prone to hack and increase the trust among the consumers as they itself could be the participators in this network, that is, increased transparency.

According to Juniper Research's latest Blockchain report, **“BLOCKCHAIN: KEY VERTICAL OPPORTUNITIES, TRENDS & CHALLENGES 2019-2030”**

•Blockchain deployments will enable banks to realize savings on cross-border settlement transactions of more than \$27 billion by the end of 2030, reducing costs by more than 11% per on-chain transaction.

•It will also reduce the cost base by manual scrutiny and KYC compliance check, treasury operation compliance and regula-



tions, etc. by 50% within few years.

### **Implementations:**

The blockchain is a parallel ledger between financial institutions which can

- Act as self-validating ledgers for credits and debits
- Reduction in operating capital that means more cash flow
- Reduce the fraud/risk

### **Applications:**

**Cross Border Payments:** As this study mentioned earlier, the cross-border payment via blockchain can save a lot of time and money by cutting off the fees drastically saving a lot in the long run.

**Credit Score System:** The current credit score system used globally by financial institutions for validating an applicant's credit score before proceeding with the loan lacks mobility, that is, an individual's credit score is not valid in different country but blockchain could help us bring a universal credit score system.

**Eg:** If we study the Equifax (Credit reporting agency) data breach which took place in September of 2017, exposing data of 147 million people due to a flaw in software which allowed four members of Chinese military to allegedly exploit the data but by using blockchain which is immutable in nature, no data could be altered.



**KYC (Know Your Customer):** The current system takes hours or even days at worse to verify the identity of an individual but with the implementation of blockchain the KYC process could be validated Realtime thus saving a lot of time and money.

**Clearing and Settlements:** The current process clearing and settlement process involves updating different ledgers for an amount debited from person A to that amount being credited to person B in a single transaction, but with the use of blockchain which is itself a ledger the process of clearing and settlement can be reduced drastically to few minutes.

**Eg:** The period for clearing and settlement in NSE is two days but by using a distributed ledger model of blockchain with smart contracts the time can be reduced from 2 days to few minutes by assuming the investors as the participant nodes of the NSE blockchain.