**How Blockchain technology is transforming financial services sector; the road ahead**

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Most of the financial services sector have made substantial investments in range of services and applications due to the glitches of network downtime and security breaches. The Banking Sector has always been the first mover and has adopted new [technology](https://www.financialexpress.com/life/technology/) to shift from conventional banking practices to convenient banking services. One such technology that has grabbed the attention from all the corners is Blockchain technology. Blockchain, primarily a distributed ledger technology (DLT), has emerged as one of the most groundbreaking application and has a tremendous potential to metamorphose the workings of financial sector in recent years.

Blockchain technology ledgers have innovative benefits over traditional approaches which facilitate bilateral settlement by eliminating intermediaries failures, delays, collateral costs, minimize credit risks, faster implementation of transactions, enhanced transparency in operations, amongst the others. A blockchain in simple terms is a series of connected blocks containing a record of data managed by a bunch of computers not owned by any single entity secured by using a cryptograpy principle. Blockchain technology includes three main properties, such as Decentralization, Transparency, and Immutability. In a decentralized system, the data and information are stowed by multiple entities and each one in the networks owns the data.

If any new transaction is undertaken, the same will automatically be stored in the block and added to the chain. Each block is endorsed by an individual entity securing using electronic cryptography to safeguard the reliability of the database. The level of transparency is high. A person’s identity is protected by cryptography represented by their public address. Once the block has been added to the entire chain, any further changes in the block cannot be made unless it is approved by all the members and therefore, tampering with the existing data in this technology is almost impossible. Immutable records are visible to all participants, which improves data accuracy, security, and help to reduce the risk of fraud. One of the significant advantages of blockchain technology is that it is safe, secure, decentralized, transparent as well as relatively cheaper.

**Impact of Blockchain on Banking and Insurance sector**

* Banking space has been facing many issues in terms of recoverability of loans granted by the banks. Usage of Blockchain technology can be a breakthrough where all the transactions right from the disbursal till its end use will be recorded in a block. Generating the blocks of every transaction will help the banks in tracing the diversion of the loaned funds, if any.
* The domestic payments usually take minutes to hours, but several days are required to complete the transaction for cross-border payments. Further, inadequate infrastructure creates security concerns while making the international transfer and therefore, these payments are open to cyber-attacks that can interrupt transmission. Therefore, blockchain technology facilitates payment systems, decreasing the operational costs, human blunder, and falsification. It also facilitates banks to get rid of all intermediaries in the payment processing system to lower the costs to process payments between banks and clients.
* Blockchain technology can be of great use in administering trade finance transactions for the banks. Under the blockchain technology, all the documents such as LCs, Bill of lading/ Shipping bill, [Tax](https://www.financialexpress.com/money/income-tax/) invoices can be recorded in a centralized repository where all the parties involved can access the real-time data. This will improve the efficiency tremendously and will allow the parties required to track the transactions with ease. Using smart contracts to automate workflows and clearing calculations reducing processing time and benefit the banks by reducing errors resulting from human mistakes. Barclays and an Israel-based start-up company have successfully executed a trade transaction using Blockchain, which reduced the processing time from 7-10 days to less than 4 hours. The Bank of America, Merrill Lynch, HSBC and the Infocomm Development Authority of Singapore has applied blockchain in processing trade transaction using a paper-less letter of credit.
* All large amount of record keeping transaction and operations can be recorded using blockchain distributed ledgers that are unalterable and impede fraud. Further, the decentralized nature of transactions reassures the banks better security over the records.
* Smart Contract is a self-executing contract with the terms and conditions between the parties to the contracts are codes on a platform. Therefore, Smart Contracts extend the blockchain’s usage from simply record keeping to automatically implementing terms of multi-party agreements. With a shared database running a blockchain, the Smart Contracts are executed based on matching of terms and are validated by other parties instantaneously and without the need of an intermediary.
* It becomes essential for the banks and other financial institutions to build a database containing all the information of the customers including their identity proof like PAN card, passport, Aadhar card, driving license, etc. mainly to avoid the [money](https://www.financialexpress.com/money/) laundering, other forms of frauds and complying with the regulatory KYC norms. Blockchain technology can help the banks to overcome the problem of establishing identity by offering cryptographic protection that ensuring the involvement of all parties to the transactions.
* The insurance sector also faces many difficulties, as there are inefficiencies involved, frauds in claim settlement and other issues, which eventually push the costs up. Application of blockchain technology can be of great help in this [industry](https://www.financialexpress.com/business/industry/) as all the relevant information will be available to the parties concerned, i.e., the claimant, insurance companies. Blockchain technology can help the insurance companies (including re-insurers) and regulators to access the required data and it will, in turn, help them in settling the insurance claims at a much faster rate. In case of property and casualty insurance, it becomes essential to have legal documentation of the property damaged. Owing to the proposed integration of the records, companies can now trace the history of that property with ease and can detect whether the claims made by the claimant are legitimate or not. This will bring in more efficiency, and eventually, companies will be able to reduce the operating costs significantly and can earn higher margins.

**The Way Ahead**

Blockchain reduces delays, conflicts, and confusion in many aspects of financial services. Further, blockchain represents a new form of trust. Already, the Australian Securities Exchange using a blockchain-based system to handle its post-trade clearing and settlements systems. The banks like JP Morgan Chase, Bank of America, and Goldman Sachs actively involved in blockchain technology for their operational activity. Blockchain has potential to transmute the financial services sector by plummeting potential costs and labor savings.

Nearly about 24% of financial executives from all around the world are conversant with blockchain technology accordingly to PwC report. About 77% of Fintech is expected to adopt blockchain in their production system by 2020, according to Global Fintech Report 2017. Concisely, blockchain is a boon for financial services sector as it seeks to bridge the existing gap that prevails between the regulators, financial institutions and the consumers, while it also comes with a caveat of an initial upfront investment that will be required in order to bring all these agencies on a common platform and operates in tandem.