BLOCKCHAIN – REVOLUTIONIZING SUPPLY CHAIN MANAGEMENT

Salient Features

Digital ledger
recording and storing all transactions on a peer-to-peer network

Information
is encrypted and all incidence is recorded which means it cannot be changed

Information is decentralized – certifying authority not required

Enabled sharing of information across multiple providers

No risk of privacy breach

Applicable for data that is shareable

Why Blockchain?

Resolving Supply Chain Challenges with Blockchain

Late payments
This in turn leads to disruptions in supplier relation and had to pay late fees

Absence of PO invoices
They do not make it to right place and chances of being misplaced are high

Cash flow Prominence
Companies are unable to forecast their cash flow or are only able to provide a rough estimate at any given time

Duplicate/ fraudulent payment
Due to lack of standardized process, organizations receive duplicate or multiple invoices.

Lack of credit
There is a need for additional financing options and credit availability

Invoice overdue
Organizations often adopt extended payment cycle due to multiple hops and delays in sharing of information across stakeholders

Benefits

Avoid cyber attacks
As frauds, or cyber attacks at one participant's system compromises every other participant in the system.

Robust business transactions
As lack of trust between stakeholders lead to costly audit processes, 3rd party validation of transactions and additional expenses of intermediaries to resolve disputed transactions.

Single source of truth
As business transactions are ambiguous, not verifiable and prone to errors and tampering.
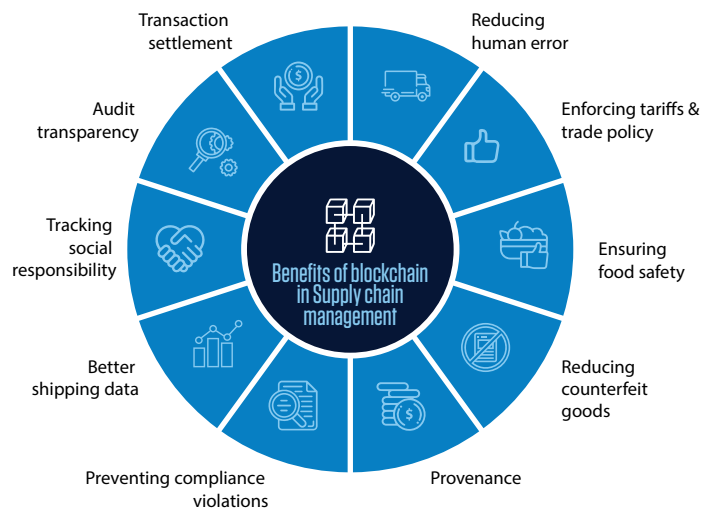
Efficient business transactions
As availability of trusted information and reconciliation process delays (information exchanges with banks) due to the lack of system inter-operability adds to the cost of doing business.

Lesser touch-points
As different stakeholders use different software, and thus too many inter-connections to manage. There is no unified data layer that everybody can trust.

The Use of Blockchain in Supply Chain

Benefits of blockchain in Supply chain management

- Transaction settlement
- Reducing human error
- Audit transparency
- Enforcing tariffs & trade policy
- Tracking social responsibility
- Ensuring food safety
- Better shipping data
- Reducing counterfeit goods
- Preventing compliance violations
- Provenance

Transparency:
- B2B logistics have better visibility,
- improved credibility
- help build trust between businesses.
- lowers disputes related to invoices and reduce auditing costs while preventing exploitation of workers at ground level.

Fair marketplace: freight transportation becomes within the budget of small and large companies alike

Verification authenticity: Discourages counterfeits and can deal with the issues of trafficking for once and all.

Resolve disputes: Eliminates the need for 3rd party for resolution while discouraging fraud.
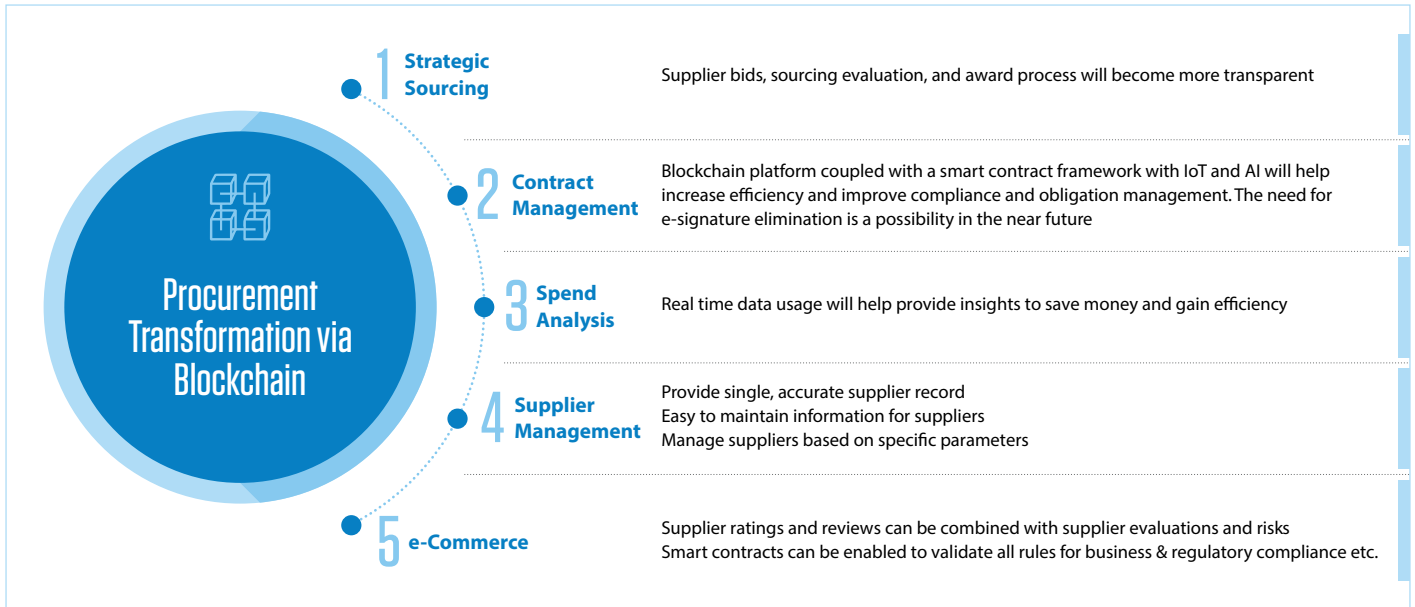
Inventory tracking: Blockchain will allow companies to backtrack individual items back to their origination.

Better shipping data:
- decreased inaccuracies
- enhanced delivery times
- fraud detection

Payments and invoices:
- Simplifies the payments and ensures secured and transparent payments across international borders
- Provides a fraud-free system with minimized errors without the help of a middleman

Procurement Transformation via Blockchain

1 Strategic Sourcing
Supplier bids, sourcing evaluation, and award process will become more transparent

2 Contract Management
Blockchain platform coupled with a smart contract framework with IoT and AI will help increase efficiency and improve compliance and obligation management. The need for e-signature elimination is a possibility in the near future

3 Spend Analysis
Real time data usage will help provide insights to save money and gain efficiency

4 Supplier Management
Provide single, accurate supplier record
Easy to maintain information for suppliers
Manage suppliers based on specific parameters

5 e-Commerce
Supplier ratings and reviews can be combined with supplier evaluations and risks
Smart contracts can be enabled to validate all rules for business & regulatory compliance etc.

Applicability across Industries

Manufacturing	Retail	Logistics	Pharmaceuticals
Enables consistent protection of the supply chain data and provides transparency between certification groups and global suppliers of the certification process. Also, safeguards against unwarranted meddling with supply chain data.	The inventory is visible to the retailers at all times, and it allows them to track their shipments and count the total supply. Provides real-time stock levels and shipment status to the stakeholders. Blockchain's immutability provides accurate data per time.	Ensures better management of freight tracking in logistics. It also enables seller, buyers, office personnel to track the shipped good across the globe. Allows reduction in admin and logistics shipment timelines. Approvals from various departments are required before arrival for goods travelling via borders, loads of paperwork which may lead to fraud at various points. Blockchain ensures this process of approval is regularized with a safe transaction record creation and approvals. Also, time required to transfer goods are minimized.	In the pharmaceuticals industry, provenance is of utmost importance. Blockchain's immutability technology is the basis upon which the drugs are tracked from manufacturing till the end customer. This also enables identification of where there is a breakdown in the supply chain. A lot or prospect is there in not only yearly loss reduction but to increase everyone's well being and reduce mortality rates due to counterfeit medicine.

For more information, contact infosysbpm@infosys.com

Infosys®
Navigate your next

Infosysbpm.com

Stay Connected