Utilising Blockchain in India’s Supply Chain Network

What is a blockchain?

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- In its simplest form, a blockchain is an accounting ledger which can store data on any real-world transaction of any kind.
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- The unique feature in this ledger is the decentralised style and the data encryption which is highly resistant to tampering.
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- This enables the blockchain to act as a trustworthy third party in applications ranging from property ownership and financial services to identity verification.
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- And it can also perform on public basis, such as Bitcoin, or private, with a single entity operating a closed blockchain system.
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What is the advantage of Blockchain in India?

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- In India, blockchain can generate three tiers of impact across the supply chain network.
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- **Improving transparency –** The reason why large logistics players haven’t deployed a centralised platform is due to less transparency, enormous on-boarding effort required, and data-privacy concerns.
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- Blockchain could address these issues by the block chain’s plug-and-play capability which makes on-boarding less onerous.
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- Large players can create their own private block chains with their suppliers, which results in the automation of paperwork and due diligence.
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- These networks could then be repeatedly connected to each other to create

exponentially larger networks, amplifying the benefits.
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- Also the Blockchain’s structure, combining encryption and distribution, makes data far more secure and gives each blockchain participant far more control over its data.
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- These capabilities increase the upside of joining a blockchain while dramatically reducing the downsides.
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- **Dispute resolution** - The present supply-chain structure makes litigation for faulty or defective supply tedious and expensive, fraught with unreliable data.
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- In a blockchain-enabled supply chain, each movement of the shipment can be tracked and logged in a way that all of the parties can trust, but with the data open only to them.
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- “Smart” contracts could then penalise parties automatically from amounts held in escrow.
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- **Opportunities for SMEs** - Estimates show that last-mile delivery accounts for 40-50 per cent of all logistics costs and SME vendors have proven their cost effectiveness in this domain.
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- Blockchain provides a novel solution to build trust on the SMEs by on-boarding the SME vendors onto a blockchain platform where they can be assigned reputation ratings which track their performance.
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- The customers could also have dozens of high-quality logistics options to choose from, all with the assurance that comes with performance track records that have been verified by blockchain.
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- The potential impact is twofold by enabling SMEs to have a larger share in the supply chain market as well as help to increase the supply chain market by increasing demand as the addition of new players reduces prices.
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Source: Business Line

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