



THE CURRENT AND FUTURE STATE OF  
BLOCKCHAIN IN THE SUPPLY CHAIN INDUSTRY

PART TWO



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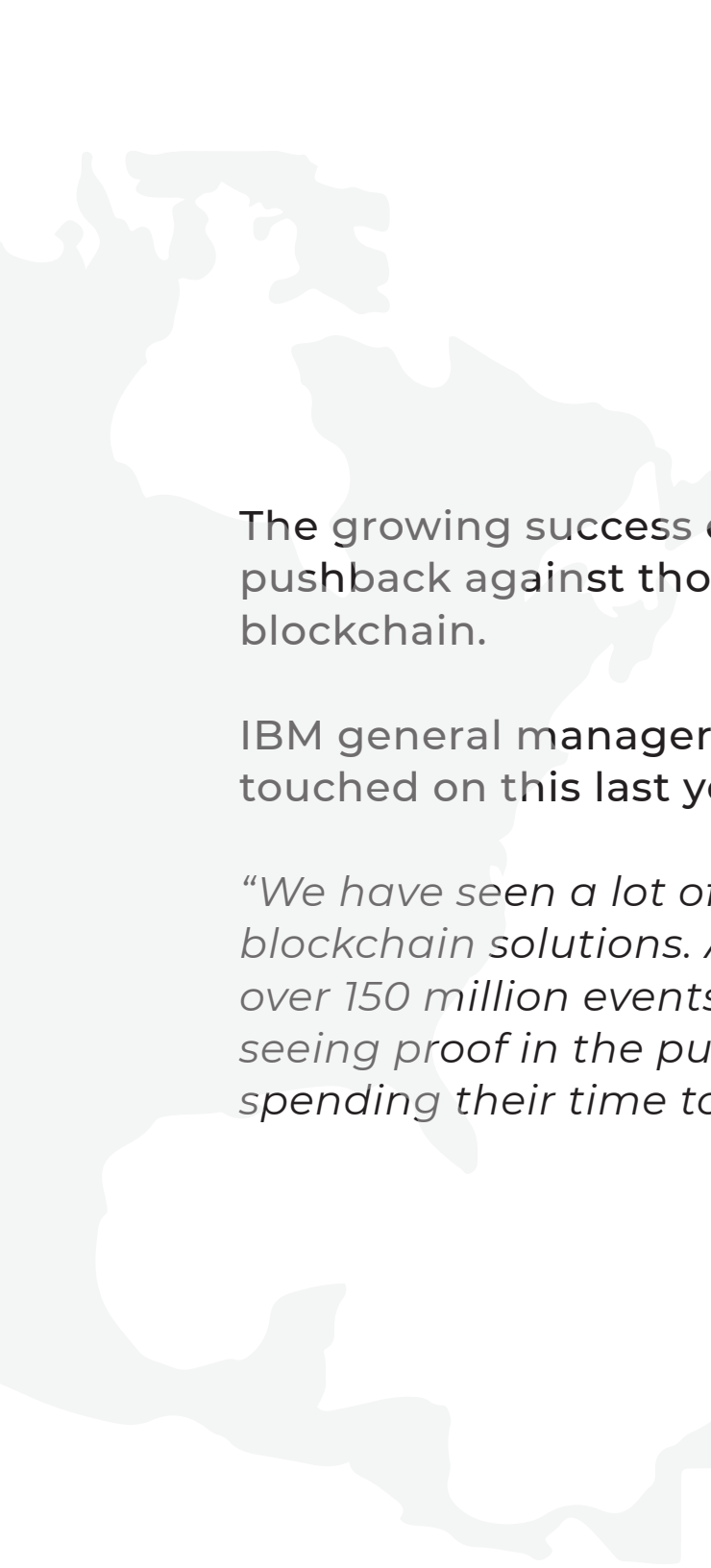
# THE CURRENT AND FUTURE STATE OF BLOCKCHAIN IN THE SUPPLY CHAIN INDUSTRY PART 2

## State of Blockchain Adoption

Despite blockchain's burgeoning presence in the supply chain industry, there is reluctance on the part of many to embrace it until they see more results from the technology. As such, even with all the hype around it, the adoption of blockchain has been gradual.

A survey conducted earlier this year by MHI and Deloitte revealed that only 10% of respondents had adopted blockchain technology.

Currently, the biggest blockchain player in the world of supply chain is TradeLens. It's a blockchain platform created jointly by IBM and Maersk. Together, all the companies that have joined the platform now account for more than 20% of the global supply chain market share.



The growing success of TradeLens has brought with it pushback against those who doubt the capabilities of blockchain.

IBM general manager and head of blockchain, Marie Wieck touched on this last year:

*“We have seen a lot of skeptics talk about the validity of blockchain solutions. And I think with over 90 organizations and over 150 million events captured on the system, we really are seeing proof in the pudding in terms of where people are spending their time to get benefits from blockchain.”*

# PROS AND CONS OF BLOCK-CHAIN TECHNOLOGY

While blockchain clearly has many benefits (most significantly the 3 pillars earlier outlined) as a database, due to it still being a nascent technology, there remain a lot of concerns over its current applicability in some industries, including supply chains. Here is a list of pros and cons worth keeping an eye on as blockchain continues to grow more prominent.

## Pros

**Transparency** - Since every transaction is recorded and easily accessible by those in the blockchain, the journey and state of the product can be tracked.

**Decentralized** - There is no single authority or entity in control of all the data, which in turn means that the entire database doesn't rise and fall on the decisions of a central decision maker. This allows for continuity and stability in blockchain and, by extension, supply chain management.

**Immutable** - The data recorded cannot be manipulated, ensuring the validity of the data recorded, crucial for a reliable supply chain ledger.

**Secure/Stable** - Since all the data isn't in one place (no central authority), it's considerably harder to hack, shutdown, or be corrupted.

## Cons

**Novelty** - Blockchain is still a very new technology, and the supply chain industry is still getting accustomed to it. Simply understanding the technology, how to talk about it, and how to use it to its full potential remain hurdles to be overcome.

CoinDesk describes this issue in their article addressing blockchain limitations:

*“Blockchain technology involves an entirely new vocabulary. It has made cryptography more mainstream, but the highly specialized industry is chock-full of jargon.”*

Moreover, since supply chains are made up of disparate parts, each segment of the chain has to go through the process of educating itself about blockchain and decide whether the technology is something it's willing to adopt.

**Security** - Yes, this is both a pro and a con, though more the former than the latter. The main security risk with blockchain is called a 51% Attack. This is when, in theory, one player/entity in the blockchain gains control of 51% of the networks computing power. This is unlikely but possible.

**Efficiency** - A blockchain should be integrated into a larger, digitally savvy platform for a supply chain. If adopted in a vacuum, the continual process of data input and validation can be timely. However, this issue can be resolved by an automated operation to make sure the data is clean, secure, and reliable.

Maturity - Blockchain is still catching up to market expectations. It's an exciting technology with incredible potential but, as of right now, it doesn't have the infrastructure to deliver on all of it yet.

Kasey Panetta of Gartner writes:

*“While the term blockchain is often used in conjunction with innovative solutions in areas such as supply chain management or medical information systems, what’s currently available on the market doesn’t always match what is hyped in news stories.”*



# WHERE IS IT SET TO GO IN THE FUTURE?

As trust in blockchain technology as a viable platform for supply chains increases, so does its adoption in the industry. The same survey mentioned earlier conducted by MHI and Deloitte indicates incredible growth in blockchain use in the coming years.

Of 1000 respondents, 62% anticipate using the technology in the next 5 years. Moreover, 77% foresee blockchain having a “*substantial impact on their supply chains over the next 10 years.*” This then suggests that the mass adoption of blockchain technology in the supply chain industry is a matter of when, not if.

# SOURCES

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