

UDAI KUMAR MOPURU,  
SUBJECT MATTER EXPERT,  
BANKING & FINANCIAL  
SERVICES

# BANKING ON BLOCKCHAIN: HOW THE TECHNOLOGY WILL HELP CURB FRAUD



# BANKING ON BLOCKCHAIN: HOW THE TECHNOLOGY WILL HELP CURB FRAUD

UDAI KUMAR MOPURU, SUBJECT MATTER EXPERT, BANKING & FINANCIAL SERVICES

Has blockchain done to banks what Uber has done to public transport? Or Airbnb to hospitality? Not just yet. The technology is more than 10 years old, but banks have only recently begun exploring its potential.

In their book, *Blockchain Revolution*, B. R. Don and

Alex Tapscott define blockchain as "...an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value."<sup>1</sup>

As blockchain is based on decentralized technology, it is a transparent distributed digital

ledger (a replica of a list of transactions in the network that is present on a number of computers across the network but not on a central server). This key feature can help banks and financial institutions more specifically in the areas of fraud and money laundering.



## Trade Finance: Smart Amendments & Reduced Cost

The way in which blockchain technology works is an effective counter to present-day fraud. Digital, real-time copies and the tokenizing of goods and invoices ensure that problems of duplications and adherence to various regulatory norms across geographies are fixed. It also helps streamline processes wherein multiple stakeholders are involved.

Further, it is more difficult for hackers to isolate a single point within the system to target as

blockchain is not centralized and there is no single point of failure. With blockchain, common frauds such as 'double spend' can be eliminated. (Double spend is when a fraudster makes two payments together to dupe merchants into thinking a payment has been made, while the money is sent to the fraudster's digital wallet).<sup>2</sup>

In this regard, trade finance provides one of the most seamless and effective entry points into the industry for blockchain. It is well known that

the current state of international trade lacks the ecosystem to create efficient and robust financial mechanisms. Traders are prone to various risks due to inefficiencies in the system such as documentation, logistical complications and different trade regulations across regions.

At present, a Letter of Credit (LC) is the usual way to make payments. However, due to delays, process inefficiencies and high costs, LC is losing its value. Blockchain can help ease the documentation

1. <https://finsia.com/insights/news/news-article/2018/05/10/applications-of-blockchain-to-financial-services-three-banking-use-cases>

2. <https://www.raconteur.net/risk-management/how-blockchain-is-eliminating-online-fraud>

process, and ensure cost and time reduction for banks.

Manual contracts can be replaced by 'smart contracts' and hosted on blockchain. These automated

contracts can be amended without the help of humans and integrated with payment gateways. This makes way for faster payments, quicker amendments

and corrections within the LC, and eliminates the need of correspondent banks as third parties, thereby reducing additional fees.



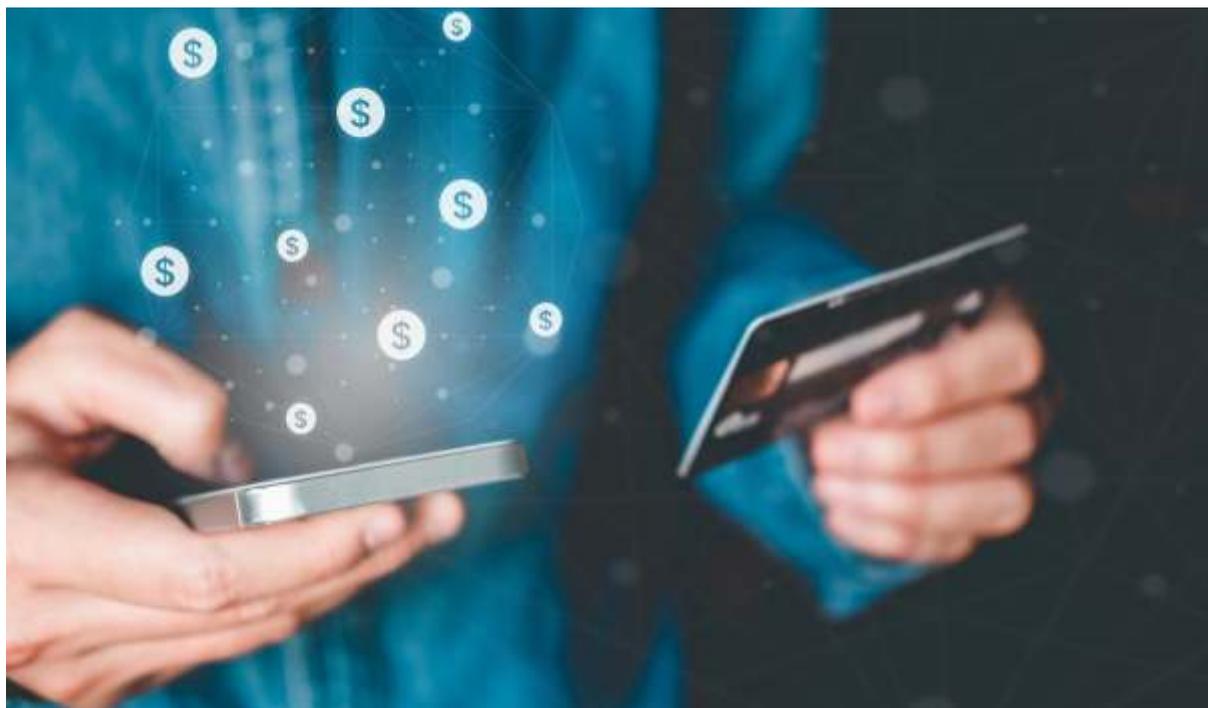
## Remittance Payments: Seamless & Quick

Remittances done through wire transfers can take several days, require numerous clearances as well as high processing fees. Chances of fraud are high due to the opacity of the system. With blockchain, both the sender and the recipient know exactly where their money is since it allows for real-time tracking.

To capitalize on this, more players are entering the remittances market, including platforms such as BitSpark and BitPesa. By using cryptocurrencies, such blockchain platforms can not only bring down the fees significantly, they can help transfer money more quickly as well. In fact, the World Bank has noted that cutting prices

by 5 percent can save USD 16 Billion a year.<sup>3</sup>

Banks are now exploring collaborations with blockchain payment partners for remittances in addition to their existing partnerships with global payment networks, FinTechs and real-time settlement systems.



3. <https://www.dw.com/en/blockchain-the-future-for-remittance-payments/a-42375862>



## The Future: One Block at a Time

---

With a slew of advantages, blockchain has the capability to disrupt the banking industry. However, due to stringent regulations and the sensitive nature of the industry, the implementation of this technology is still in its infancy. But there's little doubt that more and more financial institutions are experimenting with the technology. Financial hubs such as London, Singapore and Amsterdam are using the technology in various capacities

and it's only a matter of time before more cities join the bandwagon.<sup>4</sup>

However, as the technology still needs to be heavily monitored, its limitations are visibly apparent. These include energy consumption, costs, privacy and regulations. Though many of these issues can be clarified through legal frameworks, there are many hurdles to be crossed before the industry fully embraces the technology.

Further, in order to adopt blockchain technology, banks

may have to overhaul their existing legacy systems or find a way to integrate both. This can be a labor-intensive, time-consuming and expensive proposition.

But in an evolving business landscape, blockchain is already part of a trend along the lines of digital, artificial intelligence, cognitive computing and internet of things. It requires closer examination and experimentation across banking and financial institutions globally.

## Key Steps in Blockchain Adoption

---

- Use-case identification – Letter of Credit / Know Your Customer / Trade Finance
- Choose the consensus mechanism
- Choose the platform based on the consensus mechanism (Ethereum, Corda, OpenChain, HydraChain and BigChainDB are some of the popular platforms)
- Accordingly design the nodes (private / public, cloud / on-premise or a blend)
- Configure the platform for permissions, key management, address, key formats and signatures
- Build the application program interface if the platform chosen doesn't have one inbuilt
- Design both user and admin interfaces based on the access / permission levels
- Enhance the blockchain by integrating with other digital solutions such as artificial intelligence, cloud, internet of things, machine learning and data analytics

---

4. <https://www.investopedia.com/articles/forex/042415/10-cities-leading-bitcoin-adoption.asp>



## About WNS

WNS (Holdings) Limited (NYSE: WNS) is a leading global Business Process Management (BPM) company. WNS offers business value to 350+ global clients by combining operational excellence with deep domain expertise in key industry verticals, including banking and financial services, consulting and professional services, healthcare, insurance, manufacturing, media and entertainment, retail and consumer packaged goods, telecommunications and diversified businesses, shipping and logistics, travel and leisure, and utilities and energy. WNS delivers an entire spectrum of business process management services such as customer care, finance and accounting, human resource solutions, research and analytics, technology solutions, and industry-specific back-office and front-office processes. WNS has delivery centers worldwide, including China, Costa Rica, India, the Philippines, Poland, Romania, South Africa, Sri Lanka, Turkey, UK and US.



To know more, write to us at [marketing@wns.com](mailto:marketing@wns.com) or visit us at [www.wns.com](http://www.wns.com)

**WNS**  
Extending Your Enterprise