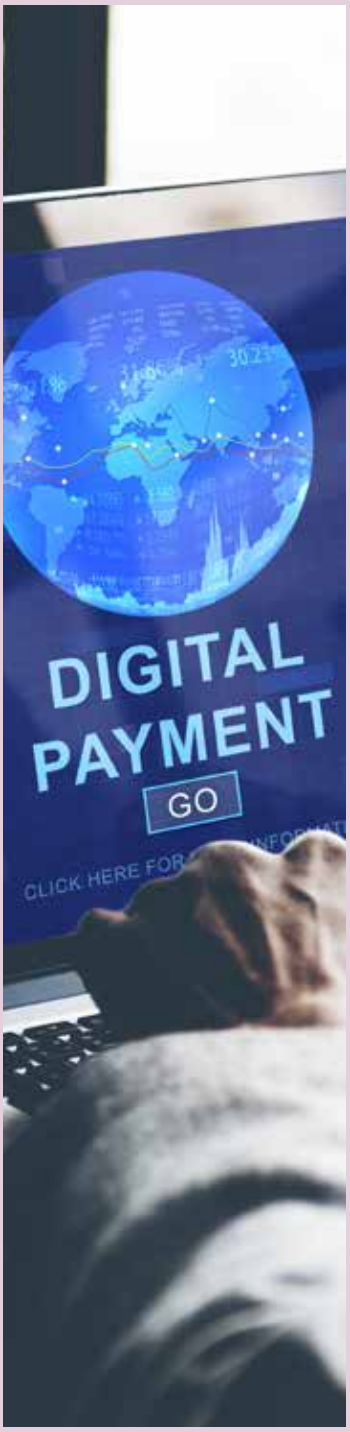
PERSPECTIVE



DIGITAL BANK AND THE BLUE OCEAN OPPORTUNITY FOR DISTRIBUTED LEDGER TECHNOLOGIES

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Thanks to the disruptive progress in internet and mobile technologies, global commerce has now moved to the real-time era. Unfortunately, transaction banking has failed to keep up – most of our payment processes still follow the telegraph-age technologies. We still have international payments using an inefficient correspondence banking – an expensive and time-consuming remittance method (in fact, it is generally faster to send payments through an international courier as cash, rather an international wire). Differences in local regulations and messaging formats, along with a lack of universal translators and cross-border payment rails, make payment-tracing and straight-through processing quite difficult. In domestic payments, paper money (cash and check) still rules, and most of the payments still do not carry additional information required for tracing payments (such as invoice information for automatic settlement). Contracts required for global commerce (e.g., letters of credit) are still paper-based, and depend on the trustworthiness of specific central entities. Remittance providers face huge difficulties in complying with diverse sets of country-specific rules for anti-money laundering (AML), and this makes micro-remittance cost-prohibitive. Global banking corporations need to allocate huge working capital in country / currency-specific nostro accounts, which would reduce their return on capital. Additionally, a lack of trust in failed governments, and unbacked currency printing leading to devaluation of currency, are huge risks. These are significant pain points for global economic activities and financial inclusion.

In recent times however, FinTech companies, spurred on by the open-source revolution, have taken it upon themselves to address these gaps and are disrupting this space with new ways of moving money and transaction-capture. The emergence of cryptocurrencies (such as Bitcoin and Ripple), distributed ledgers (e.g., blockchain), and the Internet of Things (IoT) technologies are opening up new and untapped economic opportunities. These technologies are still evolving; regulators and standardization bodies are still working on building a governance framework to control the risks and vulnerabilities, while banks are still trying to assess the impact of these technologies on their business. We are seeing a startup gold rush in this space (especially in distributed ledger, remittance, and internet-based value transfer in a decentralized manner), and it seems like a Napster-moment in the FinTech world.

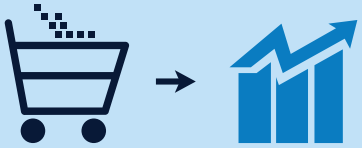
Although Napster failed financially as a music distribution company (probably because it was way ahead of its time), it opened up a Pandora's Box of innovation in its space (some successful cases include Apple iTunes and Spotify). We may see history repeating itself in a similar manner in the virtual currency and distributed ledger space. It is still too early to assess the future. Whether these new technologies may compete and win against incumbent players or perhaps incumbent players may adopt them and make them mainstream, one thing is certain – these disruptions will improve the efficiency of the financial market, increase trust, and open up new business opportunities. Let us explore some potential areas that will witness implementation of these technologies:

01

Business -> Business

Example: International supplier payments

02



Consumer -> Business

Example: International e-commerce

03

Business -> Consumer

Example: Payroll, retirement benefits

04

Consumer -> Consumer

Example: Cross-border remittance

1. Cross-border money transfer, international remittance, and AML:

These decentralized, borderless, consensus-based settlement, and ledgering technologies may disrupt the correspondence banking model and improve the speed and cost structure of cross-border payments. There are several Bitcoin remittance players emerging and Ripple is creating a new platform for the forex marketplace, reducing the forex spread and the need for multiple account relationships. Incumbent remittance players (such as Western Union, American Express, and VISA) are also assessing the marketplace and may adopt this model of money transfer over the internet pretty soon. These new technologies will make real-time, cross-border P2P micro-remittances and global e-commerce feasible, improving the velocity of money in the global economy. Blockchain technologies provide opportunities to improve trust and address the AML risks by enabling financial institutions and legal bodies to trace the flow of money. Although traditionally, AML has been identified as a key risk in the virtual currency space, regulators all over the world are exploring options to control this risk using blockchain, digital identity, and payment analytics technologies.

2. Smart contracts, security market settlements, and IoT use cases of distributed ledgers:

Today, companies are seen adopting distributed ledger technologies in security market settlements and smart contracts in the trade finance space (in which, Ethereum is a leading player). We may also see various other use cases of distributed ledger technologies in the Internet of Things (IoT) space.

3. Metadata for payments contextualization and interoperability:

The side-chain and Colored Coins protocols can help add additional information that can improve data flow in the financial supply chain and help automate the settlement of invoices / record books. Today, we are also seeing additional implementation of these technologies in the loyalty and couponing space. For instance, Gyft is building a platform for gift cards for SMB players by taking advantage of the interoperability of these technologies.

How are the incumbent payment players responding?

The incumbent international payment players (such as SWIFT, Western Union, MoneyGram, Ria, and many banks that provide international payment services), are cognizant of the threat posed by value transfer over the internet. Thus, they are following a creative destruction process to avoid a Kodak-like failure. Many multinational banks and payment players adopt Ripple for intra-group transfers and settlements (like Commonwealth Bank and Western Union), while SWIFT is discussing these new developments in SIBOS (their annual conference). Also there is the rise of new consortiums like OpenLedger and R3 CEV (a collaboration between leading banks and FinTech firms). The incumbent players have one unique advantage over the new entrants – they own the brand and customer touchpoints. They can utilize these new technologies if they agree to compromise on their margins.

Possible use cases of math-based currencies and distributed ledgers

Security market settlement: Distributed ledger technologies can transform the security market

BitPay convergence of online and offline: Bitcoin is now accepted in both in offline POS and online e-commerce transactions

IoT, smart contracts, and trade finance: Ethereum, is a blockchain network to enable smart contracts and Adept, an IBM / Samsung partnership, create an architecture for the Internet of Things (IoT) using blockchain technology

Gyft, colored coins, and coupons: Online platform for gift cards for SMB – partnership between FirstData and Coin using blockchain distributed ledger

P2P and low-cost instant remittance: Bitcoin Remittance (Rebittance) – A lot of startups are addressing this low-cost and fast remittance service (without corresponding bank delays and costs)

Due to the unique value brought forth by these math-based currencies and distributed ledger technologies, I feel they are here to stay. Furthermore, the accelerating trend of the adoption of these technologies by leading banks, regulators, and analyst firms, only strengthens this conviction. For the digital bank of tomorrow, it is extremely important to explore the opportunities and assess the risks of these business models. Following are some pointers that can provide a roadmap for embracing these changes:

- Revisit your business model, cannibalize your existing revenue stream with an open mind, and explore new service lines: If the Ripple model works in scale, we will see the corresponding banking and forex margins per transaction dipping. However, banks will now have the opportunity to work with larger markets to improve the transaction volume.
- Manage new risks: Alternate rails will present new risks of security and compliance. Banks must identify and manage these risks effectively.
- Partner with specialists: Banks should partner with new payment players that have already built efficient platforms in scale. One example can be partnering with Ripple – we are seeing many banks and payment players exploring partnerships with this truly unique platform.
- Explore untapped opportunities: These technologies offer many business opportunities that are yet to be identified and explored. The combination of the Internet of Value and the Internet of Things provides a once-in-a-lifetime opportunity for innovation. We will see various types of shared ledger technologies (public, private, etc.) building the infrastructure, which today, is still in a nascent stage. Truly digital banks should invest considerable resources in understanding and tapping these opportunities – a point that needs to be added in the executive agenda for enterprise-wide backing.

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Abhisek, a Lead Consultant from Cards and Payments Practice, has 13 years of consulting experience and has advised some of the top banks and payments organizations in their payments transformation initiatives. His interests include payments services hub, risk management, digital convergence, etc. He is a certified Project Management Professional (PMP®), Financial Risk Manager (FRM®), and has passed the CFA Level-1 examination.

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