Central Bank of Egypt

Blockchain & Banking

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Blockchain Expert
Who Invented Blockchain Technology?
“Satoshi Nakamoto”
2009

Currency

- Mining
- 21 million
- Volatile value
- >50% in hands of 880 individuals
- Litecoin, Ripple, Zerocoin

Technology

- Blockchain
- Distributed shared ledger
- Cryptography (SHA-256, PKI)
- Consensus model
- Smart contracts
W. Scott Stornetta and Stuart Haber worked on creating a chain of blocks secured with cryptography to protect files on personal computers from being modified.

They explained this concept in a whitepaper, entitled “How to Time-stamp a Digital Document.”

Some suggest that certain blockchain elements had already found practical use at the time in P2P technologies, such as cloud computing and torrents. However, it wasn’t until Bitcoin & Nakamoto that blockchain gained prominence.
Banks Using Blockchain
Development timeline – where are we now?

**2015**

**Exploration & Investment**
- Initial capability & use case assessments
- Early adoption likely for internal reconciliation

**2016-2017**

**Early Adoption**
- Leading-edge banks see the value of blockchain and begin deployments for asset classes that are bilaterally traded and/or have no central clearing authority
- Regulatory certainty drives adoption for external uses
- Regulatory authorities realize the benefits of blockchain for auditing and compliance, and rule-making begins

**2018-2024**

**Growth**
- Banks begin to see the benefits accorded to early adopters and – combined with regulatory guidance and certainty – the network effect takes hold
- New service providers and models emerge
- Deployments go viral across numerous asset classes
- New products and services are created; incumbent processes and services are discarded

**2025**

**Maturity**
- Blockchain adoption is considered mainstream and integral to the capital markets ecosystem

Source: Accenture Research
Granular assessments at the use case level are necessary to determine which blockchain opportunities to pursue

- Blockchain opportunities by industrial sector

![Diagram showing the impact and feasibility of blockchain opportunities across various sectors.](image-url)
In 2018, 84% of Executives Stated Blockchain Technology is More Secure than Traditional IT Solutions. (Deloitte)

Spending on Blockchain Solutions Jumped to $1.5 Billion in 2018. (IDC)

32% of Companies are Currently in the Development Stage of Blockchain Projects. (PwC)

26% of Companies Plan on Investing Between $1 Million and $5 Million in Blockchain Technology. (Deloitte)
39 firms complete global trial of KYC on Corda blockchain platform

JUNE 28, 2018

Press Release

June 28, 2018 (New York/London/Singapore) – Enterprise blockchain software firm, R3, today announced that its partners have completed over 300 transactions on a Know Your Customer (KYC) application built on the Corda blockchain platform during a four-day collaborative trial.

A total of 39 firms participated in the project, including ABN AMRO, ALD Automotive, Alfa bank, Bank ABC, Bank of Cyprus, BCI, BNP Paribas, China Merchants Bank, Commercial International Bank – Egypt, CTBC Holding, Deutsche Bank, DNB, Hana Bank, ING, KB Kookmin Bank, Banca Mediolanum, Natixis, National Bank of Egypt, NH Nonghyup Bank, Qiwi, Raiffeisen Bank International, RCI Bank and Services – the financial services provider for Groupe Renault, SBI Bank LLC, Shinhan Bank, Societe

Bank of England To Test Blockchain Features For New Payment System

SWIFT’s Blockchain Pilot For Bank-To-Bank Transfers Went ‘Extremely Well’
Mastercard Partners With Blockchain Firm R3 for Payments Solution

HSBC Completes First Blockchain Letter of Credit Transaction in Yuan

Emirates NBD registers cheques on a blockchain
MENA Area

Middle East Blockchain Development Primed to Lead the Global Industry

Blockchain Smart City in the UAE

Saudi British Bank Launches Ripple-Powered Instant Cross-Border Transfer Service
Over 50 Banks Simulate **Letter of Credit Transactions** on R3’s Blockchain in 27 Countries

- **Over 50 banks** participated in the simulation of letter of credit transactions on R3’s blockchain platform in 27 countries on six continents.

- The participants of the six-weeks-long trial reportedly include **CIB, National Bank of Egypt, RBI, MUFG, Standard Bank & Societe Generale.**
Why Blockchain Technology

- Blockchain Technology
- Unalterable Copied only
- Real time Tracking
- Security
- No Third Party Involvement
- Trusted Transaction
- Reduce Cost
- Transparency
- No single Point of Failure

Blockchain for Banking
What’s holding blockchain back?

Percentage of respondents ranking top three barriers to blockchain adoption

Note: Base: 600.

Q: Which of the following will be the biggest barriers to blockchain adoption in your industry in the next three to five years?

Source: PwC Global Blockchain survey, 2018
Blockchain Technology Risks

Closer Look at RISKS

- Technology Immaturity
- Availability and sustainability of skills
- Unknown Risks

Blockchain for Banking
Central Bank of Egypt achievements

Egyptian Blockchain TaskForce
Unveiled in July 2018
Assessing the Blockchain platforms
Defining the use cases
Defining the roadmap for the use cases

Business Committee
Technical Committee

3 Major Banks
Tech innovators
Researchers

CBE
EMLCU
iScore
Egyptian Credit Bureau
Blockchain for Banking

SHARED KYC
The blockchain-based Shared KYC Platform provides a secure,
Blockchain for Banking

- Shared KYC Data
- Blockchain Identities (Bank ID)
- Shared Sanction Lists
- Lower AML Spending
- Real-Time AML

KYC & AML
A blockchain-enabled KYC shared ledger platform benefits all stakeholders by:

- Enabling greater transparency
- Reducing operational inefficiencies
- Enabling up-to-date customer data

- Private and immutable ledger that enables sharing of kyc information across banks in a transparent and secure manner
- Reduces customer on boarding time and enhances customer experience
- A single source for a customer data reduces potential for fraud by inhibiting data ambiguity
Blockchain for Banking

- Shared Sanction Lists
- Lower AML Spending
- Real-Time AML

KYC & AML
Major Considerations
System Features

- Liveness Detection
- Facial Detection & Recognition
- OCR Extraction
- Real Time Authorization
Face Match + Liveness Check

ID Proofing Check
Is the ID document authentic and valid?

Validity Check
Is the person holding the ID the same person shown in the ID photo?

Liveness Check
Is the person holding the ID physically present during the transaction?
Customer journey experience

Capture ID Document → ID Document Check → Face Match → ID Check OK
Blockchain is the biggest technology since The Internet.

What to Make of Blockchain?
Thank You

Ahmed Mansour