



# Insight to Blockchain and its Application to Mgt Accounting

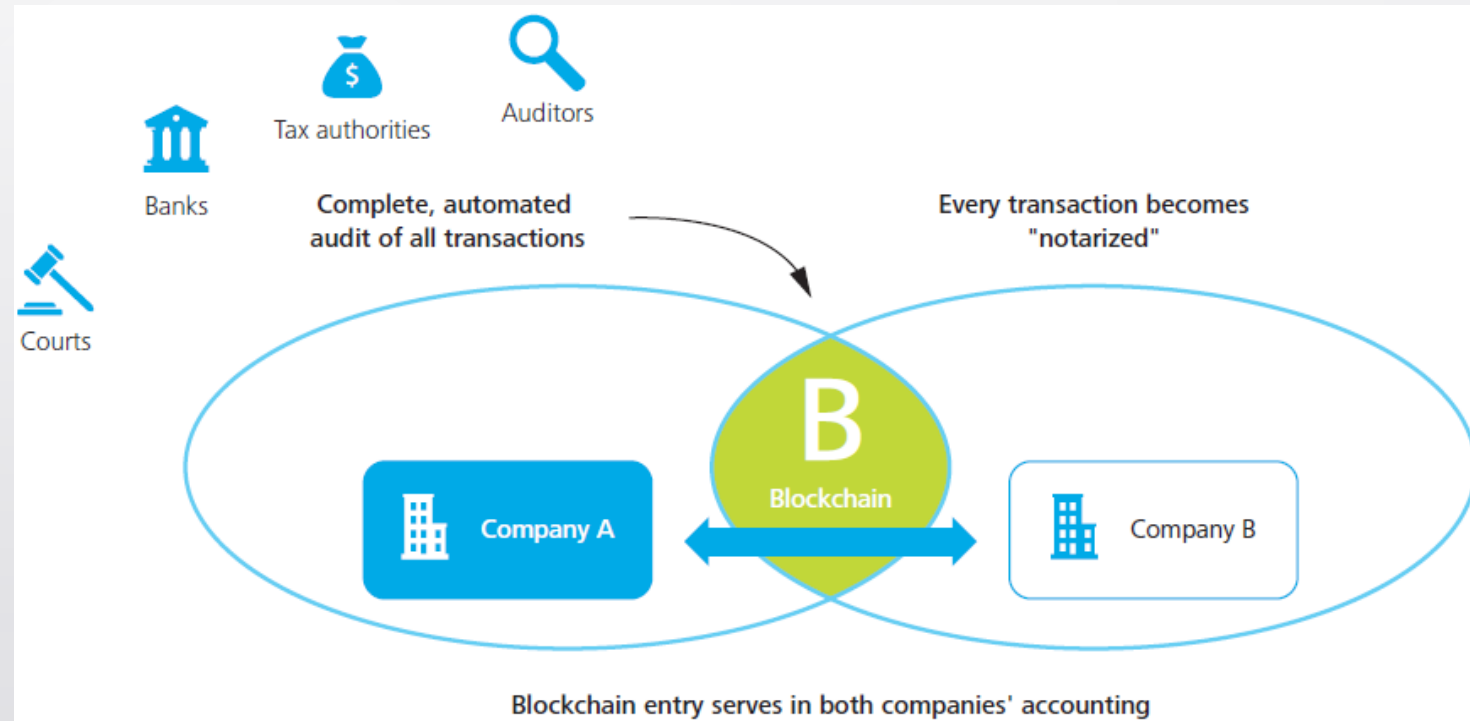
Dr. Asif Naimur Rashid

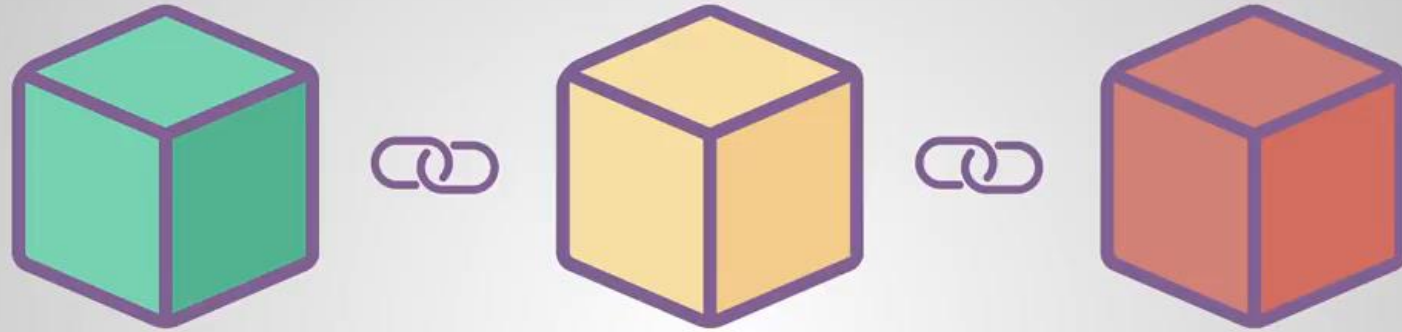
CIO, Robi Axiata



## What Four Phrases Define Blockchain's Personality & Identity

- Accounting Technology
- Encryption
- Digital Signatures
- Security Protocols





# Blockchain

— *Simply explained* —



## Most Talked about Reasons for using Blockchain

- **Visibility and transparency:** The distributed ledger database maintains records in 'blocks' seen by all chain users in near-real-time
- **Security:** With cryptography and digital signatures, all nodes validate a transaction and contribute to consensus-based assurance
- **Shared authority:** No individual owner is responsible for a record's integrity, meaning resilience is assured



## Most Talked about Reasons for using Blockchain

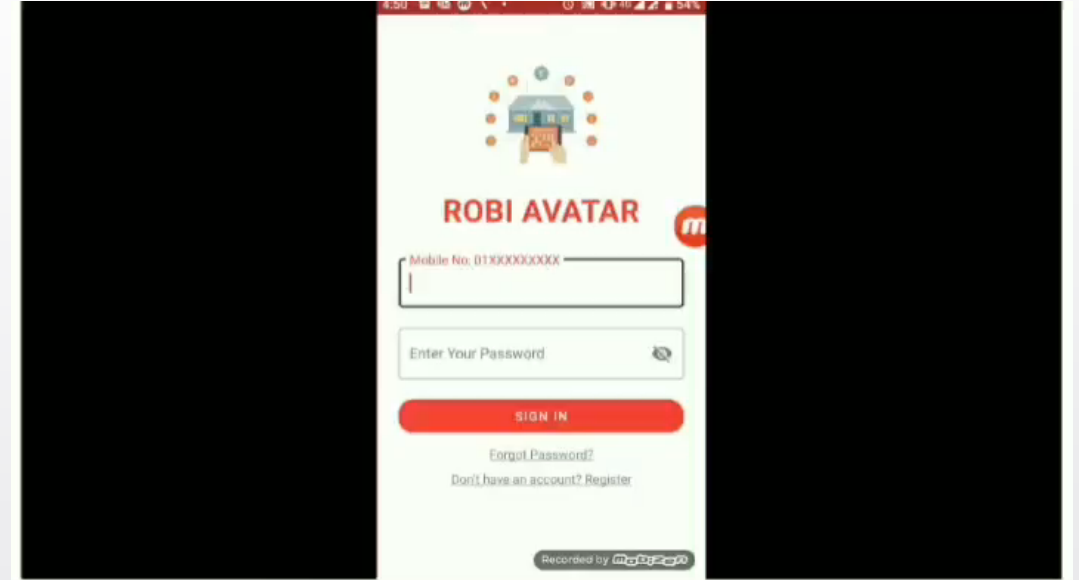
- **Immutability:** Entries cannot ordinarily be altered or edited, sustaining a permanent, indelible record
- **Embedded controls:** It's easy to automate processes through smart contracts
- **Ease of reconciliation:** All participants work off the same data set





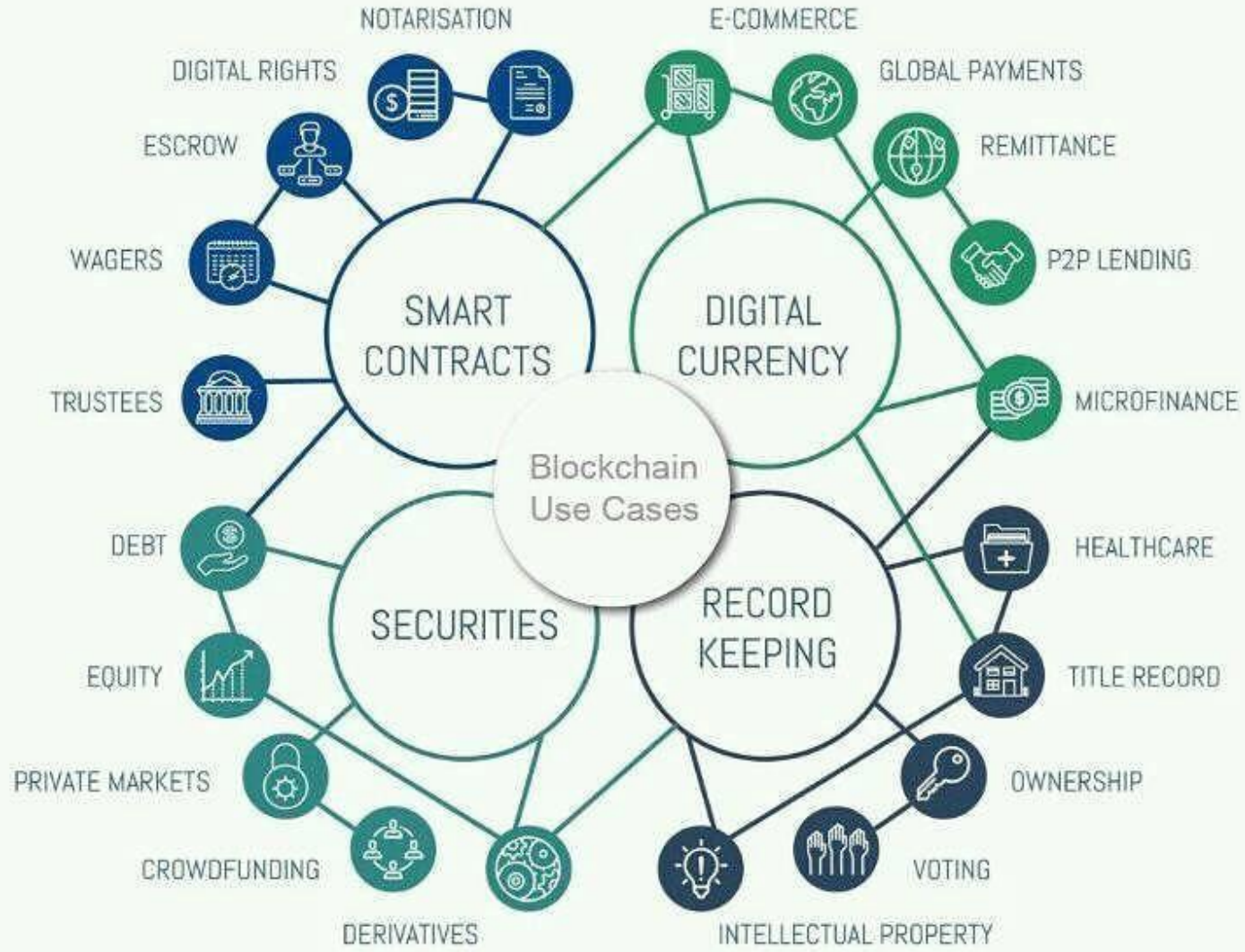
## Blockchain @Robi

- ❑ **User Authentication & Authorization:** User login verification, access control and transparent user validation
- ❑ **Device Life Cycle Management:** Device identification, add/del device, profile updates, New device onboarding and secured data transaction
- ❑ **Decentralized Ledger System:** Distributed and immutable data management for security
- ❑ **AI/ML Chatbot Skill/ intelligence Validation:** User & skillset validation; prevent modification & manipulation



Server listening on 172.18.0.45:18000  
Participant: 172.18.0.38:18011

# Blockchain in Fintech





## **What Basic Problem Statements may Trigger Blockchain Exploration**

- Do we want to sign up to a shared venture?
- Are we ok to devolve control to a non-hierarchical, disintermediated, peer-to-peer structure?
- Who will design the system, maintain it, and how will costs be shared?
- Do we have a Blockchain data governance in place?
- Are there simpler solutions around?





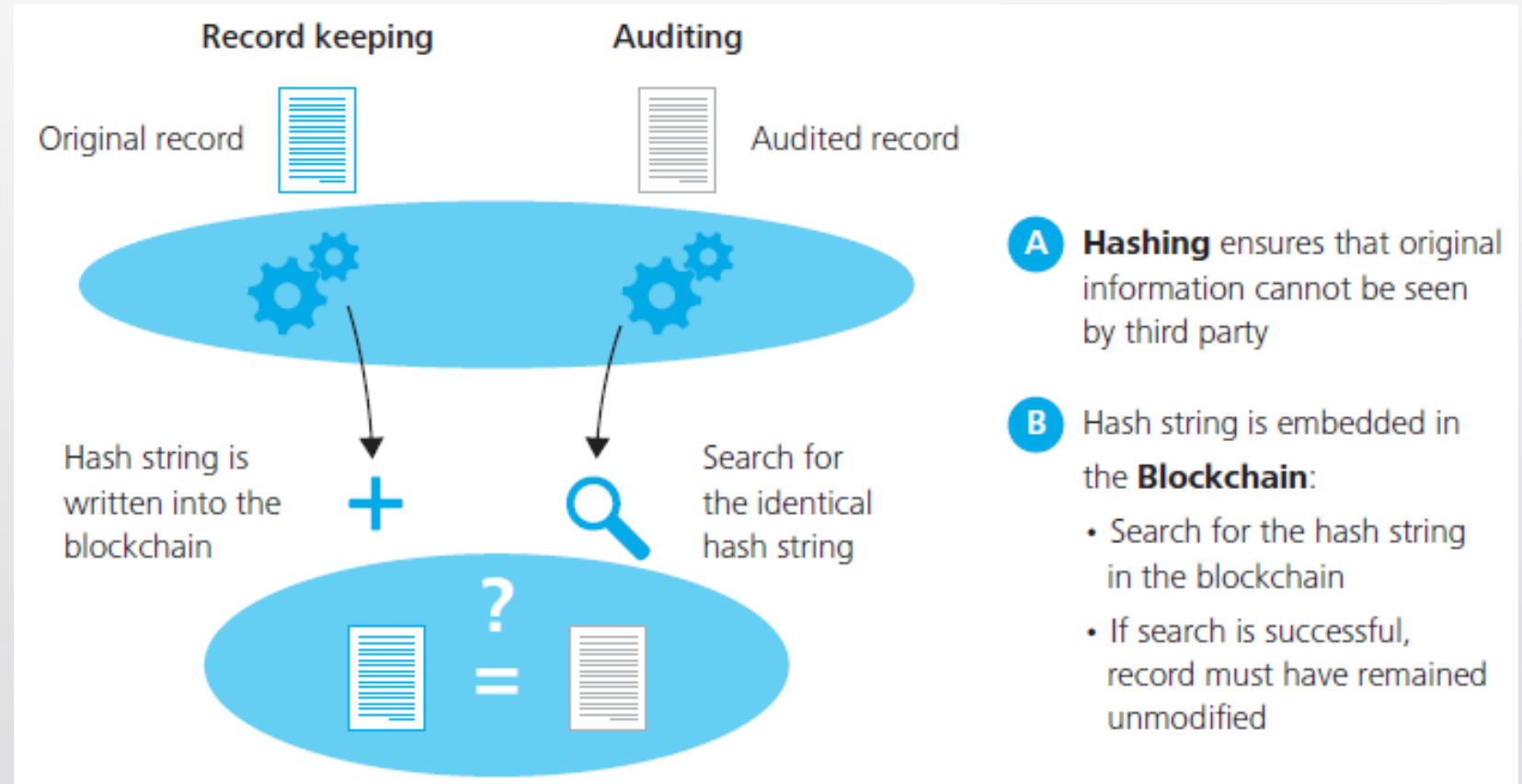
## **Why Blockchain in Management Accounting**

- Single version of truth, all parties have the same record
- Ledgers recorded at the same time, in multiple computing elements
- Data shared across public or peer-to-peer networks
- Self-balancing & continuous checking eliminate the need for reconciliation



## What could be a Simple First Use-Case to Test the Wind

- Record Verification using Blockchain





## A Bit More Specific Use-Case to ICMAB: Standard Conformation

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### Resources

**Resources**

- Cost Accounting Record Rules >
- Professional Standard >**
- Presentations Materials >

**Professional Standards**

**ICMAB Releases ten Bangladesh Cost Accounting Standards (BCAS):** The Cost Accounting and Financial Reporting Standards Committee of ICMAB has the pleasure to release Bangladesh Cost Accounting Standards as below:

**Cost Accounting Standards Volume-I**

12. BCAS 21: Capital Budgeting [Download](#)

BANGLADESH  
COST ACCOUNTING  
STANDARDS  
BCAS - 21

Capital Budgeting



## A Bit More Specific Use-Case to ICMAAB: Standard Conformation

21.6.27 One approach that has been used is to rank the expected benefits for a new project from most tangible to least tangible. Then the estimated project benefits are entered sequentially into the analysis beginning with the most tangible. The process continues until all the expected benefits have been considered. Then a table is prepared summarizing the cumulative net present value of the project as each benefit is considered.

Item	Present Value (BDT '000)	Cumulative Present Value (BDT '000)
Initial investment and subsequent maintenance items net of tax shield effects	20,000	20,000
Operating cost savings	14,000	-6,000
Increased revenues through improved service and quality	3,000	-3,000
Decreased working capital requirements	1,000	-2,000
Decreased organizational costs	4,000	2,000
Image benefits	7,000	9,000







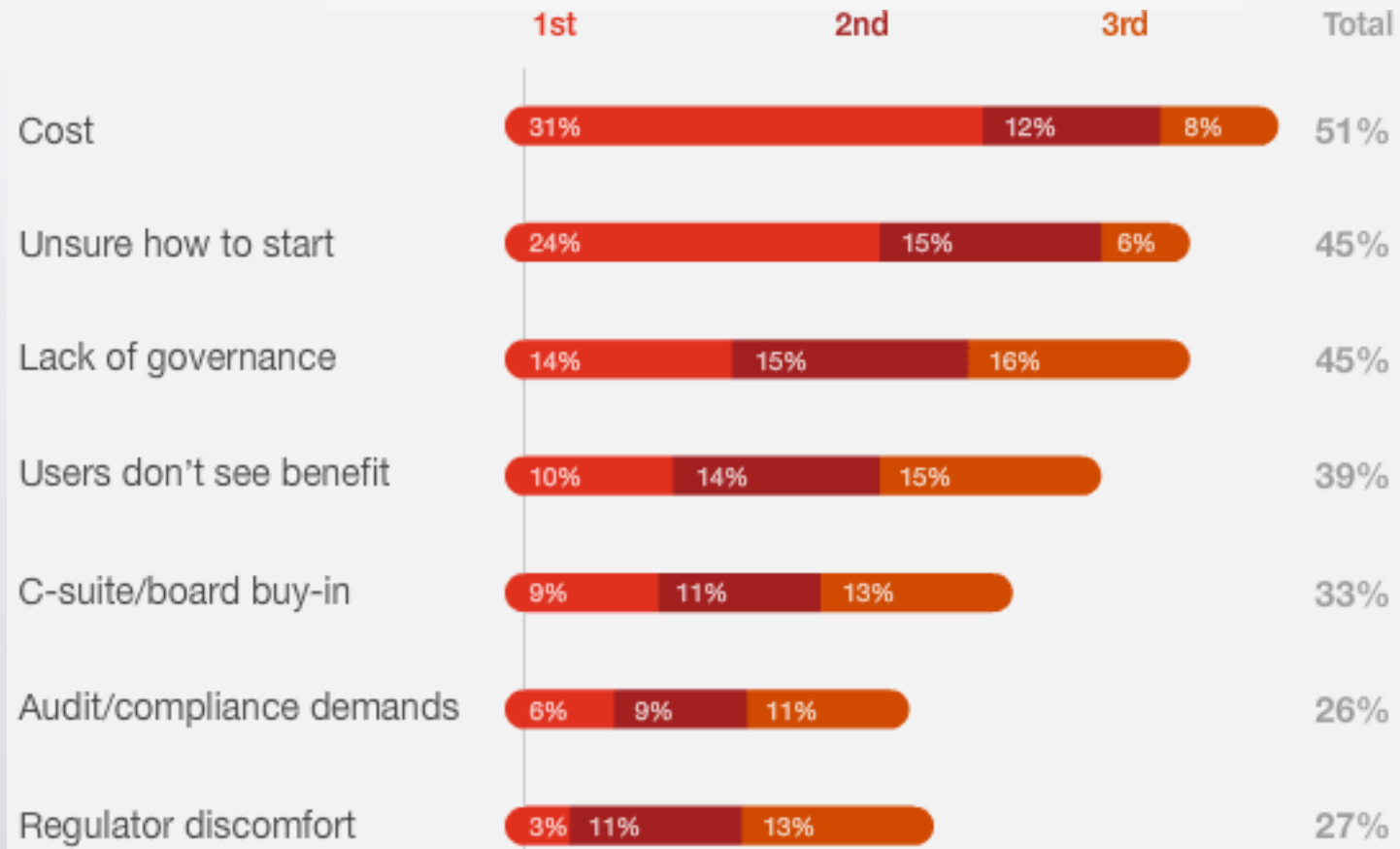


## **Things to Focus when Preparing a Blockchain Business Case**

- Blockchain is not a revolution, it's an evolution
- Commit to new ways of working, else drop it
- Frame the problem and solution, don't single out
- Start small, then scale out



## Things to Focus when Preparing a Blockchain Business Case

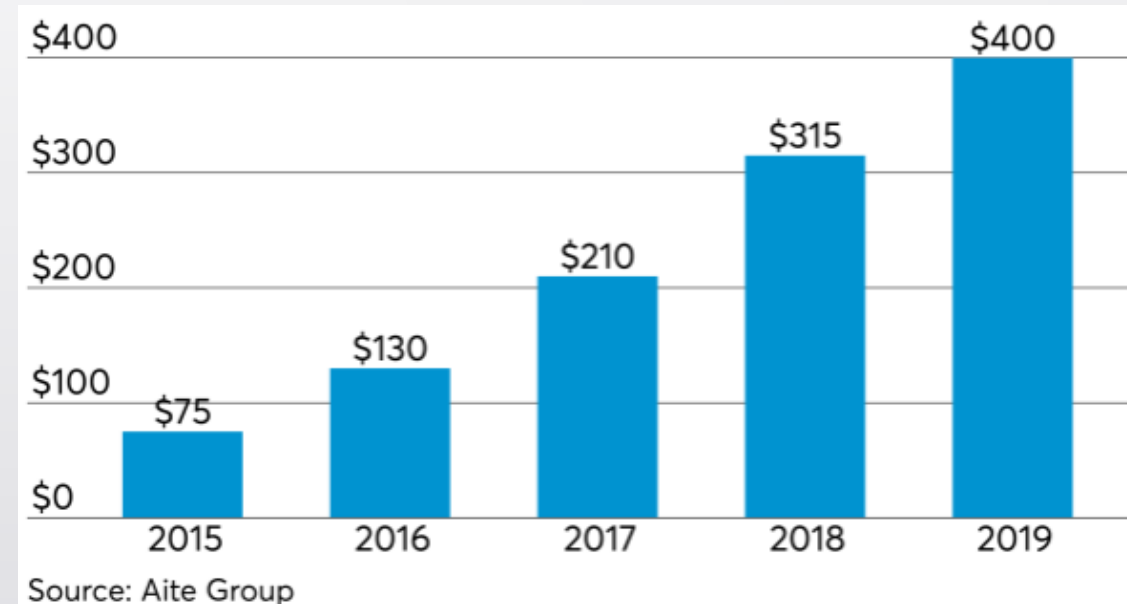


*Note: Base: 209 (none or research phase).  
Q: What are the top three reasons that your organisation hasn't progressed further with blockchain?  
Source: PwC Global Blockchain survey, 2018*



## Who are Pioneering in “Blockchain in Mgt Accounting”?

- Deloitte, Ernst & Young, KPMG & PwC
- Deloitte has 30+ blockchain prototypes
- Amazon & IBM offer robust, flexible, and scalable blockchain platforms
- Start-ups offering BaaS (Blockchain as a Service)



Estimated Capital Market spending on BC



## **What Could be the Roadblocks in Using Blockchain**

- Enterprise-grade Blockchain deployment is rare
- Blockchain deployment can be costly for large-scale businesses
- Blockchain operating model at the backend can be complex
- Blockchain robustness and scalability still are under scrutiny



# Vulnerability of Blockchain Technology

The screenshot shows a web browser window displaying a blockchain wallet interface. The browser's address bar shows the URL `login.blockchain.com/ru/#/home`. The page header includes the word "BLOCKCHAIN" and navigation links for "Security Center" and "Settings". The main content area features a sidebar with various wallet assets and a central section for trading cryptocurrencies. A prominent blue banner reads "Торговать криптовалютой не значит торговать бесконтрольно." (Trading cryptocurrency does not mean trading uncontrolledly.) with a "Начать" (Start) button. A "UVScreenCamera" window is overlaid on the page, showing recording settings for video (1366x768) and audio (Microphone, Speakers). The wallet interface displays a total balance of \$423,45 and a list of assets including USD PAX, Bitcoin, Ether, and Bitcoin Cash. A Bitcoin price chart is visible on the right, showing a price of \$11,558.02 and a recent peak of \$13,829.39. The Windows taskbar at the bottom shows the system time as 9:22 on 06.07.2019.

Asset	Balance
USD PAX	\$0,00 (0,00 PAX)
Bitcoin	\$423,45 (0,036636898 BTC)
Ether	\$0,00 (0 ETH)
Bitcoin Cash	\$0,00 (0 BCH)





## Can Blockchain Find Usage in Fighting Cyber Crimes

### How Blockchain Will Transform Cyber Security

- Verifying Software Downloads / Updates
- Mitigating DDoS Attacks
- Biometric Private Keys
- Preventing Hacks on Automated Systems
- More Secure DNS
- Decentralizing Data Storage
- Securing Edge Devices
- Public Key Infrastructure & Multi-Signature Logins
- Computer Hardware Provenance
- Data Veracity

**DISRUPTOR** DAILY Blockchain in Cyber Security



## **Blockchain Operationalization Highlights**

- Clear and thorough understanding of the technological aspects
- Pilot small use-cases to firm-up the learning
- Create a Blockchain Framework with technology, tool, process & people
- Be in touch with selected global Blockchain consortium
- Treat Blockchain as a ecosystem



