Enterprise Blockchain Adoption

Open FinTech Forum

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The HFS mission is to provide visionary insight into the major innovations impacting business operations: Automation, Artificial Intelligence, Blockchain, Internet of Things, Digital Business Models and Smart Analytics.

HFS defines and visualizes the future of business operations across key industries with its OneOffice™ Framework.

HFS influences the strategies of enterprise customers, to help them develop OneOffice backbones to be competitive and to partner with capable services providers, technology suppliers, and third-party advisors. The "As-a-Service Economy" and "OneOffice" are revolutionizing the industry.

<table>
<thead>
<tr>
<th>THEY'RE INFLUENTIAL</th>
<th>THEY'RE BUYERS</th>
<th>THEY'RE EAGER TO PARTICIPATE</th>
<th>THEY'RE WILLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>74%</td>
<td>40%</td>
<td>93%</td>
<td>79%</td>
</tr>
<tr>
<td>C-level, VP, director or managers from multiple industries</td>
<td>are buyers or evaluators</td>
<td>want to discuss global business initiatives</td>
<td>want to participate in HFS surveys</td>
</tr>
</tbody>
</table>
Is blockchain a modern day tulip mania?
Blockchain “six-pack”

- **Distributed shared data** over peer-to-peer (P2P) network reduces single points of failure
- **Consensus-driven** trust cuts out the middle-man
- **Immutable transactions** ensure trust
- **Hashing-based data** ensures integrity and security
- **Automated smart contracts** promote touchless interactions across process chains
- **Permissioned and permissionless** flavors give enterprise users flexibility
Blockchain promise land

Near term: Business impact
- Process excellence
- Efficiency gains
- Digitization
- Tracking / Traceability
- Identity

Medium term: Competitive differentiation
- Re-imagined IT infrastructure
- Re-defined transaction management
- Trust in multi-party collaboration

Long term: Creative destruction
- Creation of new business models
- Removing intermediaries
- Disruption of traditional businesses
Blockchain fantasyland

Price to Sales (PSR) ratios as we enter 2018
(PSR = Market capitalization / revenues)

Sources of information
- S&P 500 PSR: multipl.com
- Global and India Heritage Service Providers: Y Charts and financial reports
- RPA providers: HfS estimates
- Enterprise blockchain: Coinmarketcap.com and HfS estimates
Blockchain reality

Sample: 315 blockchain engagements across 20 service providers
The “90-9-1” enterprise blockchain challenge

- Overall nascency of blockchain solutions
- Lack of understanding in distributed ledger technologies and use cases
- Lack of maturity of blockchain platforms
- Lack of success stories in the market
- Internal stakeholder buy-in around business model changes and threat of disruption
- Consortia-related challenges (set-up, management, and governance)
- Difficulty in quantifying the benefits (ROI)
- Lack of clarity on technical architecture
- Permissioned versus permissionless decision
- Security and privacy concerns

- Uncertainty and lack of formal regulations
- Lack of talent availability
- Lack of market standards, inter-operability issues
- Integration issues with legacy
- Cultural change management (internal and external)
- Latency or throughput issues in production
- Service support for blockchain largely undefined
### Introducing the BBB: Blockchain Bullshit Buster

<table>
<thead>
<tr>
<th>Blockchain BS busters</th>
<th>Key question to ask?</th>
<th>Your response?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle 1: Replacing ledgers is pointless</td>
<td>Are there many organizational entities involved that requires distributed ledgers?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 2: The realpolitik chestnut</td>
<td>Do you have a real unsolved business problem versus a vision for a utopian world?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 3: Change for the sake of change</td>
<td>Is there a real burning platform?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 4: Blindly quoting the network effect</td>
<td>Do all entities have a common goal that they will work together to have any chance of a network effect?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 5: Garbage in garbage out</td>
<td>Can you ensure that data written on blockchain is correct (though IoT integrations or other means)?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 6: Stone carvings</td>
<td>Do you need the data to persist forever for complete auditability without any censorship?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 7: Speed of light</td>
<td>Is transaction processing in seconds acceptable (versus processing thousands of transactions in a second)?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 8: The privacy conundrum</td>
<td>Are you sure that you will not need to store private information on blockchain?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 9: Law ambiguity</td>
<td>Are the rules of the game concise and clear to be implemented as smart contracts?</td>
<td>No  Not really Probably Yes</td>
</tr>
<tr>
<td>Principle 10: The good old cost-benefit equation</td>
<td>Does the outcome deserve significant long-term investment?</td>
<td>No  Not really Probably Yes</td>
</tr>
</tbody>
</table>

*Stop! Blockchain is not for you.*

*Wait! Do you really need blockchain?*

*Caution! Get some professional help.*

*Go! You’ve hit Blockchain gold.*
Who is adopting blockchain and for what?
Banks were the first movers but not necessarily the shakers

Value realization
(measured by % engagements in-production / near production)

Relative adoption
(measured by number of engagements)

Sample: 315 blockchain engagements across 20 service providers

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Banking and financial Services | Prominent blockchain use cases

Sample: 315 blockchain engagements across 20 service providers

Relative adoption
(measured by number of engagements)
Sample: 315 blockchain engagements across 20 service providers
Government | Prominent blockchain use cases

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Raging debates on how to drive enterprise blockchain adoption?
800-pound gorilla  VS  Consortium

WAL*MART  PRO
Microsoft

WE TRADE
The Institutes®
RiskBlock Alliance
Permissionless

Permissioned

ethereum

Public

Private

HYPERLEDGER

ripple
OR

Automation

Internet of Things

Blockchain

Artificial Intelligence

AND

Blockchain

Automation

Artificial Intelligence

Internet of Things
Disrupt the intermediary

Fill a market void
Key takeaways

• Blockchain is no longer a tourism industry!

• Blockchain alone cannot solve world hunger!

• Blockchain has broader implications than financial services!

• Blockchain technology is not the issue!