

# Boardroom Questions

## Blockchain



### Why might Blockchain or Digital Ledger Technology (DLT) be important to businesses?



Up to **40%**

increased efficiency of data and digitization from single source of truth

Up to **75%**

reduction of operating risk, capital requirements and working capital

Up to **25%**

revenue enhancement as a result of better customer experience and new markets

Up to **95%**

reduction in reconciliations and errors

*Source: Estimates based on KPMG client blockchain projects 2016-2017. Indicative benefits are not guaranteed and will depend on a number of factors including the change between the current state and the envisaged theoretical future state*

### What is Blockchain or DLT?

Blockchain is the Distributed Ledger Technology (“DLT”) for Bitcoin, and now typically refers to DLTs generally. DLTs work as a distributed ledger or database system that:

**Records data** or transactions  
Designed to create and maintain **unalterable records**



**Shares data** across multiple users / devices  
May be **public or privately run** (e.g. for enterprises)

### How is using Bitcoin different from Paypal and other online payment systems?

- Bitcoin as a crypto-asset does not require integration with a bank account or credit card to transfer Bitcoin
- It is not housed within a single entity, but decentralized across all its users, applying cryptography to create integrity and trust between strangers
- Bitcoin as store of value is more volatile than most government issued currencies

### How can Blockchain technology be used in day to day business?

#### Blockchain and financial services may:

- Reduce transaction costs and complexity
- Increase transaction speed and security, releasing trapped capital and liquidity
- Enhance customer experience by minimizing duplication
- Enable financial inclusion and transactions for the unbanked

#### Technical, legal and business uses:

- Technical** – a distributed database to efficiently share information across multiple participants e.g. provenance of manufactured goods
- Business** – a mechanism to exchange value between peers (business to business; person to person) using tokenized assets
- Legal** – it can validate pre-agreed contract conditions without human intervention
- Privacy** – people’s online identity (public, private or anonymous) and personal data can be controlled by themselves and not by the provider of email, internet engine or social media groups

### What are some of the possible risks?

- Not understanding** how Blockchain can affect your business or industry
- Investing too early**, perhaps without a clear strategic business case and not fully capturing the benefits
- Your competitors taking the first advantage** thereby reducing their costs and pricing whilst creating new services





## Opportunities

Innovations are being developed including:

- **Peer to peer sharing economies** such as co-operatives can be formed and controlled by themselves, therefore not needing the sharing aggregators to take a margin
- **Digital identity** e.g. birth certificates, passports, social security: Blockchain uses an embedded trust component, meaning someone does not need to appear physically to prove who they are
- **Property ownership** – Blockchain uses a time stamp which cannot be changed, unlike a database, and could be the record keeper for all property and subsequent transactions
- **Healthcare** through medical records ensuring that only certain people can see certain aspects of the record
- **Smart contracts** – software programs that auto-execute transactions and make them easier to enforce, for example in the music industry where the artists' songs have smart contracts included, enabling the artist to be paid before the music is streamed
- **Supply chain** verification and transparency, enabling new forms of supply chain finance and reducing counterfeits
- **Intellectual property** – every industry, from people, services and manufacturing to conglomerates, can be protected from piracy
- **Agency businesses** – e.g. reduction of co-ordination and overhead costs and better sharing of information



## Boardroom Questions

- 1 Have we considered **what areas of our business can use Blockchain technology**: whether that is intellectual property, contracts, treasury, etc?
- 2 How could Blockchain be a **disruptor** to our business?
- 3 Will our **customers and suppliers benefit** from our using Blockchain and can we support them in the transition, ultimately leading to greater margins?
- 4 Are any of our **competitors, suppliers or customers using Blockchain**? What has been the impact to their business and ours?
- 5 What are the **risks of implementing Blockchain** to our current and future business?
- 6 Do we have a **strategy** in place to assess, review and implement Blockchain and if so, who is responsible?
- 7 What are the **costs** in time, resource, legal and finance to implement?

## What actions can the Board consider?



Appoint a suitable senior management person to be responsible for reviewing the implications of Blockchain to our business



Report back to the Board to give an update and the possible scenarios involving the different areas of the business and benefits



Provide an overview of how our clients, suppliers and competitors might use Blockchain



Consider the review, suggest recommendations and plan ongoing reviews

## Contact us:



### James O'Callaghan

Partner, Head of Technology Consulting,  
Hong Kong  
KPMG China  
+852 2143 8866

[james.ocallaghan@kpmg.com](mailto:james.ocallaghan@kpmg.com)



### Adam Stuckert

Partner, Head of CIO Advisory,  
Hong Kong  
KPMG China  
+852 2847 5163

[adam.stuckert@kpmg.com](mailto:adam.stuckert@kpmg.com)

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2018 KPMG International Cooperative ("KPMG International"), a Swiss entity. Member firms of the KPMG network of independent member firms affiliated with KPMG International. KPMG International provides no client services. No member firm has any authority to obligate or bind KPMG International or any other member firm third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.