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Research Topic: Food Chain Transparency and Trust

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Agenda

1. Supply Chain Complexity
2. Transparency and Trust
3. Blockchain & Use Cases
4. Conclusion
Simplified Supply Chain
Realistic model to understand basic concepts

Let's look at two problems
1. Data Fragmentation Issue
2. 1-Up/1-Down Regulations

Source: OriginTrail
"Information is the lifeblood of an organization, transparency enables it to flow" Hofstede (2003)

Data fragmentation

1-Up/1-Down Traceability is holding up progress

Source: OriginTrail
global supply chains have many borders, cultures, languages, regulations and technologies resulting in data fragmentation and a lack of interoperability.....this creates information asymmetry.....and reduces the opportunity for primary producers to benefit financially from their work....

....we need to help them to onboard onto global value chains, become more transparent, and provide the assurances (trust) needed by buyers
Transparency & Trust
Transparency & Trust has 2 Enemies

Bad Character
Impossible to eliminate

Bad Data
Possible to reduce

Organizations must ‘Think Like A Criminal’ to find vulnerabilities and mitigate risk

Source: Various include. Consumer Goods Forum, Google Images, Fotolia
Key Question:

Can technology help to enhance our ability to reduce the risk of ‘bad character’ (and detect it) and improve our data governance?
A blockchain should be seen as a configuration of multiple technologies and tools that integrate processes to solve a unique problem or use case.

"Blockchain is foundational not disruptive"

"it will take decades to implement..."

"unprecedented societal changes..."

"start now....."
Blockchain Use Cases
Yimishiji Use Case: OriginTrail Alpha Network

Product journey from farm to table

Establishing accountability within the supply chain

Product safety (looking at ways to use sensor data)

OriginTrail won an innovation award in 2017 from Walmart China for innovation in Food
Use Case: Product Safety Recall

Scenario 1: 1-Up / 1-Down
No Blockchain

Results: it took almost 7 days to trace the source

Scenario 2: All parties on a Blockchain

Results: it took 2.2 seconds to trace the source
Blockchain pilot – Improving Assurance, Transparency and Trust

**Expected Outcomes**

First implementation of GS1-centric blockchain technologies in analytical laboratory to manage assets, locations, people, samples, reports and interoperability while facilitating;

- **Rapid traceability to scientific data in product safety or fraud cases**
- Linking of scientific data to the sample & batch with GS1 standards
- Interoperability to brand owner/processor using GS1-Blockchain
- Improved data and information governance
- Improved supply chain transparency and consumer trust

Pilot will run in Saigon at Hoan Vu
What happened?

WalMart used Blockchain technology to reduce the risk to human health and safety as well as brand reputation of all suppliers.

Blockchain technology moved them beyond the limitations of a 1-up/1-down regulatory framework (7 days to 2.2 seconds for a product safety recall).

They applied voluntary methods of trust building enabled by technology, in turn this delivered improved transparency.
Blockchain technologies can help to **fix** the **data fragmentation** issue and **overcome** the limitations of 1-up/1-down **traceability** requirements.

..it will **increase** transparency and trust in the food chain and create more value...

...key to success is a combination of industry standards (GS1) enabled within an opensource, blockchain protocol.