How blockchain-enabled traceability will change the food & beverage industry forever

As food and beverage producers face growing pressure to do more with less, they face a familiar challenge: product recalls. With supply chains expanding across the world and an increased focus on bringing products to market faster than ever, it becomes increasingly difficult to prevent expensive mistakes.

In fact, 56% of food and beverage producers report one or more recalls every year. There's no question that a recall is expensive: on average, a recall costs 10 million dollars in direct expenses and 60 million dollars in indirect costs such as lost sales and brand damage.

One of the most catastrophic effects of a recall is the lasting damage to a company's reputation and market share. 15% of consumers report that they simply would not buy a product ever again after a recall, while 21% would avoid any product from the same company.

Exacerbating this issue is the proliferation of counterfeit food and beverage products. By some estimates, as much as $1.5 trillion worth of counterfeit products are sold every year. Counterfeit products muddy the waters even further, creating further consumer distrust and damaging many national and international brands.

To address these challenges while maintaining efficient, flexible supply chains, F&B producers need a comprehensive solution for accurately tracking and tracing their products. With blockchain technology, F&B producers can unlock an unprecedented level of traceability to quickly respond to recalls, build consumer trust, and more.

Save millions in recall damages with lightning fast track and trace

The traditional methods of tracking and tracing defective products are simply too slow. By the time a company is able to identify the source of the defect and locate defective products, it's often too late to avoid the worst of the losses. A 2017 report from the Department of Health and Human Services reported that food companies took an average of 57 days to recall items after the FDA was notified. Part of why it takes so long is the sluggish nature of manual track and trace methods.

With the blockchain, F&B producers can utilize a secure, transparent ledger for every transaction and quality control check in a supply chain. By its very nature, the blockchain is decentralized and encrypted, protecting it from tampering from any party. As a result, every organization involved in a supply chain can rely on the data to accurately and efficiently track products. F&B producers can identify where defective products are in a matter of seconds, avoiding disastrous recalls and saving tens of millions of dollars.

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Build consumer trust with greater transparency

As millennials slowly become the biggest spenders on F&B products, producers are having to dramatically adjust their strategy to cater to this demographic. One defining characteristic of millennials is their lack of brand loyalty - rather than choosing a product based on the brand, they are more likely to consider features such as whether it is organic, fair-trade, locally-sourced, and even the product's CO_2 footprint. More than baby boomers or Gen X, they look to brands to provide verifiable data on their products. In fact, 70% of millennials would switch to another brand if it provided data to back product claims, while 86% will pay more for a transparent product.

The same technologies that can be used to trace defective products can also be used to give customers insight into the production process and supply chain. Producers can put a QR code on products that consumers can read with an app. In a matter of seconds, consumers can view what raw ingredients are in a product, where each ingredient was sourced, which organizations helped produce it, and so forth. As consumers demand more and more transparency, this tool could prove vital in gaining market share.

Turn data into actionable insights with MindSphere and the blockchain-enabled trusted traceability solution from Siemens

By using the Siemens Blockchain enabled Trusted Traceability solution, F&B producers can closely monitor products throughout the entire supply chain. For example, a producer can have a highly accurate record of the temperature and humidity of all their products throughout production, transportation, storage, and so forth.

In combination with MindSphere, Siemens' cloud-based and open IoT operating system, producers can consolidate all of this data in one place and turn it into meaningful insights. In the event of a defect, a producer can easily identify where the defect occurred by referencing data from their IoT network. Furthermore, producers can use the solution to get automatic reports when an environment or product falls short of quality thresholds.

For an even broader application, the solution can be utilized to analyze data from across the supply chain to identify processes that are liable to producing defects or spot opportunities for further optimization.

Entering an era of farm-to-consumer transparency

F&B producers are entering an era of farm-to-consumer transparency. Blockchain-enabled traceability offers an unparalleled ability to create a single-source-of-truth and undisputed record of every transaction in a supply chain. The ability to quickly contain recalls will be game-changing in this industry, let alone the opportunities for building consumer trust and optimizing production.

It boils down to one question for F&B producers. If you're not planning on integrating blockchain-enabled traceability in your supply chain... then what are you waiting for?