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Blockchain Accelerates Amid Covid-19 Pandemic

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Amid the coronavirus pandemic, the food and beverage industry's supply chains have been getting a lot of attention. When meat packaging plants closed, the industry's ability to supply supermarkets and restaurants was under pressure. Manufacturers scrambled to find new sources for ingredients. Faced with these and other challenges, the industry has been relying on technology including blockchain to see deeper into supply chains to get information in seconds.

The pandemic may have accelerated the industry's ability to better trace and manage supply chains. Some companies are even promoting their new tech savvy on their product packaging, revealing sources and the journey traveled from production to shelf. They're not keeping the supply chain to themselves; they want consumers to know it, too.

IBM, for instance, recently announced it is helping J.M. Smucker trace a single-source coffee brand through Farmer Connect, a food tracing platform built on IBM Blockchain.

J.M. Smucker is providing the supply chain information to consumers for its 1850 100% single origin Colombian Coffee brand through QR codes on the packaging. It's transparency not only for the manufacturer, but the customer as well.

"This is only the beginning," Paul Chang, global leader for IBM Blockchain in the Distribution and Industrial Markets, said, arguing single-origin coffee could be the start of tracing other coffees for consumers.

While blockchain may not solve F&B's biggest supply problems, IBM's coffee project could be part of blockchain's true beginning as a tool for the future.

In a study titled "Food for Thought: Mapping the Food and Beverage Supply Chain through Blockchain," Marsh calls blockchain a "digital recordkeeping technology, built for securely and seamlessly sharing data."

Rather than storing data in one repository, blockchain distributes data across a network where it can be viewed and reviewed, but not altered, "creating a permanent data log that can easily be tracked and referenced."

Marsh said blockchain wasn't widely used in F&B at the time of its 2018 study, but is now being tapped to track food from farm to fork. A greater need to react to supply chains makes this even more important.

"The tracking process can also help glean information like farming practices, harvest data, and even the temperatures of trucks that products travel in to help ensure product safety," according to Marsh.

Consumers and companies are demanding transparency even more amid the coronavirus pandemic. "Know thy supply chain" is fast becoming an F&B mantra. And blockchain is inspiring interest as well as implementation. The idea is to provide data and prevent tampering, tracking foods from growers to processors, shippers, retailers, regulators and consumers.

IBM Food Trust's blockchain solution, for instance, lets companies view products' history, location, certifications, tests, and temperature data. The idea is to get food facts fast, in a channel that can't be easily altered, preventing fraud and fostering resiliency and reliability.

Sudden shifts in demand at grocery stores amid the coronavirus also revealed how delicate supply chains can be: Agility matters more due to fragility. You must be able to analyze your supply chain carefully and quickly— when adjustment is needed. Blockchain may be able to help do this.

The FDA's New Era of Smarter Food Safety blueprint also calls for more to be done to trace food recalls, mentioning blockchain as a possible path to transparency. The FDA cites "tech-enabled traceability" as a priority that could "reduce the time it takes to identify the origin of a contaminated food" due to recalls or outbreaks.

"This will also create the transparency needed to anticipate and help prevent supply chain disruptions in a public health emergency, such as a pandemic," the agency wrote about better tracing.

A better handle on supply chains, possibly with blockchain, could help cut costs, provide more flexible sourcing, increase safety, and boost compliance. Consumers hungry for health information also may want to know more about sourcing.

Will they want to know coffee's journey to the cup? Some may. Two-thirds of coffee drinkers ages 18 to 24 say they would like to drink "coffee that is sustainably and ethically produced and sourced," according to Chang of IBM.

"We hope that this can create a true circular economy...where people are directly connected to the farmers and makers who create the products they use," Chang says.

A greater focus on the supply chain is good at any time. Companies using blockchain are trying to see deeper with data available in seconds. Whatever method they choose, companies in the

digital age are going to need a closer hold on the entire supply chain. Better tracing, possibly through blockchain, could help make weaker links stronger and the supply chain more durable and flexible, when events make rapid response so essential.