

# Blockchain will simplify and transform supply chain traceability

 By [Robin Fredericks](#)

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When it comes to the food industry, building trust is a big deal. Consumers are at a point where they want more insight into where their food is coming from. According to the WWF, a bid to improve the traceability of supply chains around the world is top of mind with a major focus on transparency - but how is technology disruption promoting business growth?



Image source: [Gallo/Getty](#)

Kiara Chinniah, a solutions architect and technology specialist at Accenture's The Liquid Studio explored this and more during the recent FoodNext.Africa Conference in Cape Town, discussing how blockchain applications have begun to both simplify and transform the supply chain route.

According to a [Gartner study](#), 20% of the Top-10 global grocers will use blockchain by 2025.

But what does blockchain actually comprise, and how can it be a success?

Well, it starts with collaboration, says Chinniah. In order to provide a traceable and efficient process, there has to be trust. "It's a fragile thing. Screw up once, and it's gone."

"Trust in the food industry as a whole is limited and there are three major areas in the food industry that blockchain and its distribution immutability can help," says Chinniah.

With reference to a Chipotle case study, Chinniah illustrated the difficulties of regaining customer trust once lost:

"Chipotle, an American fast-food franchise in 2015 had a major [e-coli breakout](#). The company's profits dropped by 44% in comparison to their previous year's finances and since then, they have been giving out free coupons and free meals to try and build up their reputation again, but the company still hasn't restored company trust."

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Kiara Chinniah

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Chinniah says that this could similarly be compared to what happened recently in South Africa with the listeriosis breakout.

"You think: 'How can we fix this? How do we as consumers have more insights into exactly where our food is coming from?' And thankfully, there is a solution."



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Nir Kshetri 30 Jan 2019



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Blockchain solutions are already working and running in other industries like pharmaceuticals and gold and production, says Chinniah, "and I think they are ready to be used in the food space."

According to the [World Health Organisation](#), one in 10 people around the world become ill due to food-borne diseases – and 420,000 of these people die.

"Part of the reason we still see stats like this is because it takes really long to isolate a products recall or contamination when it's out there.

"Yes, we knew about listeriosis, but what do we do, how do we bring back all the bacon and all the viennas?"

"The fact that you went to a Checkers, or a Spar and they had to print out a little notification on the food isle saying: 'Don't worry, these products are clean, they're okay, you can eat it without dying,' is not the best form of communication," says Chinniah.

**The solution?** Having tech company's partner with retail companies.

For example, IBM has been partnering with Walmart, "and what they have been able to do and what they have been able to see was that, currently, if they had to track a package of mangoes, for example, it would take them a couple of days to a couple of weeks to track that box of mangoes from source to shop.

"But once they implemented the blockchain solution, they were able to do it in a matter of seconds.

"This technology is advantageous because everyone in the industry knows where the food is coming from, so if there is a breakout, its easy for you to track where this is from.

"We know that we got these mangoes from a certain supplier – the supplier doesn't only sell to Walmart. The likelihood of them supplying to many other retailers is very high.



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6 Jun 2017



"In this way, you create an alert on that specific item of food; everybody now knows that this is a bad batch of mangoes – don't sell it. And you are able to, in almost seconds, stop the spreading of this disease."

In order to implement this kind of solution though, says Chinniah, you do need buy-in from all your users. "Solutions like these require a lot of work."

"Every crate, every shipment or package of produce has to be tracked; exactly where it comes from and where it goes.

"The participants within the supply chain, from the farmer to the guys that are picking the mangoes, to the transport of the mango's – every single one of those third-party suppliers need to be on the route," says Chinniah.

## Visibility within the supply chain

Visibility within the supply chain is very difficult, says Chinniah, especially when it comes to data sharing between people – how does one know that they can trust the data being shared?

## Labelling

"Everyone is on this craze of eating organic and sustainable and grass-fed beef, but how do we know that when going to Woolworths, for example, it's actually what they are saying that it is?"

"At the moment, there is a company called [Where Food Comes From](#) and what they do is they actually put boots on the ground and go out there and make sure that the food that you are being sold, that is organic, is actually organic."

*“ Our teams have been fielding a number of questions regarding [#blockchain](#) and we've kept a keen eye on this revolutionary technology. We discuss it in this week's blog. <https://t.co/bMHk5ry0aJ>— Where Food Comes From (@VerifyYourFood) [August 15, 2019](#) ”*

Blockchain, says Chinniah, takes this whole process a step further by bringing food industries together around regulations and consumer demand. "Blockchain based reputation and standards for suppliers show that integrity is maintained and that market claims are what they are."

## Farmer distribution

Consumers want to know exactly where their produce is coming from, don't they? "If a company's labelling is backed by a traceable routable blockchain system, trust will inevitably be around that product," says Chinniah.

She adds that blockchain solutions within the food supply chain aren't just good for consumers, they'll also empower distributors.

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## Distributor information

"In a South Africa context, its quite a major enabler. We have the technology to give farmers and producers real access to the marketing prices and market data.

"When farmers have better information about the market place, they can be more competitive and productive."

Block Commodities recently announced a partnership with global markets and what they are doing right now, says Chinniah, is that they are creating a blockchain database platform for African commodities to help connect farmers in South Africa areas to buyers and brokers, where everything will be regulated., ie. the rates by which they sell will be regulated, and everyone will be able to see what the going rate for tomatoes are, for example.

"Can you imagine going to your local Pick n Pay or Spar and being able to know that the produce you are eating was grown in a 100-metre radius? And when it says that it's A-grade tomatoes, that you know that that is what you are getting – its not a situation where all our good fruit and vegetables are being shipped off into Africa without the backing of the stock."



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In conclusion, Chinniah said that grocery retailers who provide visibility can certify their products, create loyalty and trust amongst their consumers. "In the end, more and more people want visibility into what's inside the products they consume.

"They want to be able to make trustworthy food choices for themselves and blockchain technology will help establish that trust."

## ABOUT ROBIN FREDERICKS

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