



Transparent supply chains – is it all about blockchain?

David Meller, Responsible Sourcing Director at NSF International, looks at the drivers and trends in the development of transparent and ethical supply chains in the food industry and the role that blockchain can play.

There is increasing pressure on brands to become more transparent about all aspects of their operations, and the focus on their supply chains continues to gather momentum. The drive to evidence-responsible sourcing has at its root the fraud and food poisoning scandals that caused regulators and industry bodies to react with demands for new, higher standards of due diligence in the areas of provenance and authenticity.

This is how British Retail Consortium (BRC) Issue 7 came into existence, requiring suppliers to carry out vulnerability and threat assessments on their products and ingredients. The original concept was based on the need for food safety and brand protection. This was very much about information that could help brands keep customers safe and demonstrate, in the event of an incident, that all reasonable steps had been taken to avoid such an occurrence.

However, the world moves on. Brands are working to many more imperatives – including environmental, social and ethical concerns.

Animal welfare has been high on the list of issues for a long time and recent media coverage has put the spotlight on waste and climate change. Government and industry initiatives are placing ever-increasing targets and demands on the supply chain. As importantly, there has been a shift from the relatively simple need for compliance to a need to create and maintain consumer trust in a much wider sense. There has been a blurring of the drivers, in which consumer sentiment leads the way. Why?

Consumer trust

There is no doubt that the food industry lost a significant amount of consumer trust through the scandals in horsemeat, Salmonella in eggs and numerous others. The industry has taken on board the need both to act and to be seen as acting to regain consumer trust. Brands that have taken a clear position on responsible sourcing of their product and ingredients have been rewarded by stronger brand equity and customer loyalty.

Today, the main driver toward transparency in supply chains is consumer trust and consumers are starting to dictate how trust can be earned and good faith can be demonstrated by brands.

The millennials have come of age. This huge consumer group, aged between 20 and 40, now numbers about 1.8bn people worldwide with an estimated spending power of several trillion dollars. Unlike the older, more consumerist population, millennials are far more concerned about the world in which we live and the future for themselves and their children.

They have a more responsible attitude to the environment and ethical and social issues, like meat-eating, biodiversity and plastic waste. To a large degree this is owing to the hugely increased access they have to media information about these topics, so they are better informed than the majority of previous generations. Technology has informed this group and it has also empowered them.

An [online survey](#) conducted for NSF International in February 2019 found that millennials have much greater concern over product safety and younger Americans are generally more trusting of claims made on social media. It also discovered that 74% of millennials are concerned about potentially harmful food and other consumer products. By comparison, only 64% of Gen X and 53% of baby boomers are concerned about the safety of these products. Nearly half of millennials (48%) and half of Gen Xers (51%) trust claims on social media."



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Expectations of information are now very high and just as consumers might expect to see the view from their hotel balcony before they book their holiday or want to read reviews from other customers before going to a restaurant, they expect information just as readily about their food and its composition, source and production. Surveys have shown that millennials are willing to pay more for brands that support causes they care about.

Culture change

The culture change for the food industry is immense. Not only is there a fear of letting go of competitively sensitive information and historically a culture of tending to keep the lid on issues rather than sharing them for the good of all, the food supply chain is fast moving, with regular changes in suppliers and ingredients.

In processed foods like ready meals the sheer multiplicity of ingredients makes tracking and rendering transparent the details a nigh on impossible task. Moreover, corporate systems are rarely seamless and communications between suppliers in the chain may not even be digitised. Transparency is not a simple issue.

Nevertheless, some brands have successfully embraced a culture of openness, and transparency is increasingly being seen as an important marketing tool to engage consumers and share values with a like-minded and loyal consumer base. They show how a culture that embraces ‘doing the right thing’ can demonstrate due diligence and compliance, while simultaneously creating a competitive advantage.

In this respect, blockchain is becoming an enabler because of its ability to lock down data at every step of the production process and deliver the information, formatted in an accessible way, to the consumer as they shop via a simple quick response (QR) code on the product packaging.

TRANSPARENT SUPPLY CHAINS – IS IT ALL ABOUT BLOCKCHAIN?

New blockchain service

At NSF International, we have taken our first steps into the world of blockchain. In March of this year we launched our NSF Verify blockchain service. Initially, it will focus on bringing the consumer the story behind the beef they see on the supermarket shelf. It will enable farmers for the first time to be part of the marketing of their own produce to consumer decision-makers via a scannable QR code on the pack.

NSF is now kicking off the pilot with two major retailers and has already learnt a lot, with undoubtedly a huge amount more to learn as the pilots progress. Based on a three-factor authentication system that combines an individual animal's DNA data, geo-fencing of the farm and farmer ID, together with digitised records of the animal's life events and the processing steps post slaughter, it provides traceability that is unprecedented.

The benefits of blockchain are many, but at NSF we do not believe that it is by any means the only solution for traceability. For a start we can never guarantee that a system is fraud-proof forever – history has shown that fraudsters will always get ahead of any system at some point. Constant vigilance and governance are also required in the complex eco-systems of participants and input sources created by blockchain systems.

As businesses are discovering, the very complexity of supply chains mitigates the successful implementation of blockchain. If tracking products with multiple ingredients is complex, how do we then add other factors like labour issues and carbon production? These are areas in which we are only just starting to find effective ways to measure and to combat misuse?

So, we believe that blockchain will be a hugely important tool and will undoubtedly have its place in creating supply chain transparency. But it cannot be the panacea for all ills.

Modern slavery

Modern slavery is one intractable problem that many brands are grappling with. Although the Modern Slavery Act came into force in 2015, it appears that some companies have still not published their modern slavery policy as they are legally required to do, let alone put in place measures to ensure that the labour used in their supply chain is legally sourced and responsibly managed.

New tools are however emerging to help businesses, such as Clearview certification, which enables labour providers to demonstrate that they operate responsibly, legally and ethically in their sourcing and supply of workers.

Transparency in all these areas will grow, especially as more brands recognise that the flip side of an issue that used to be about compliance and due diligence is also a marketing opportunity. However, in many ways the issues remain the same as they have always been: people are the main risk in any supply chain. It is their behaviours that create mistakes, fraudulent activity, contamination and malpractice.

The best way to avoid these problems is the development of a healthy culture that values people, encourages empowerment and openness, and drives the right behaviours. Long-term, trusted supplier relationships, which are beneficial to all parties, lay the foundations for good behaviours and ethical practices – more than any blockchain system or certification programme can do.

The good news in the long term is that the right culture, where doing the right thing is valued, can be good for the bottom line. At its simplest there may be less waste and more efficient production, and at best the brand reputation and customer loyalty that accompany brands that are seen to be doing the right thing are a vital component of success.

I predict we will be seeing a lot more focus on how to create effective and positive cultures in 2019.

About the author

David Meller is a graduate in Food Technology from Reading University.

As Responsible Sourcing Director at NSF, David leads NSF's activity around responsible sourcing and ethical trade in food and non-food, including aspects such as responsible recruitment, modern slavery, social compliance and animal welfare.

Prior to joining NSF, David was the Director of Product Integrity at the Fairtrade Foundation overseeing the licensing of the Fairtrade Mark. He spent 20 years at Sainsbury's in a number of technical and commercial roles and was latterly responsible for sustainable sourcing.

