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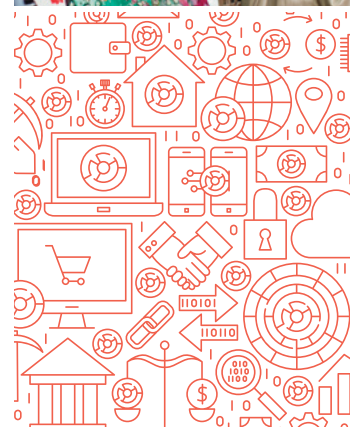
THE
FUTURE
OF CONSUMER



The supply chain and brand value

In this article we look at how transparency and business ethics are driving supply chains to the foreground, and how new technologies can give your business an edge.

Supply chain management is business critical in the FMCG sector. It ensures that the right goods and ingredients get to market when they are freshest, when there is demand, in time for any promotions, and at the lowest cost. But it also ensures that consumers are getting what they pay for: not only a product that's consistent with its marketing - including where it comes from and what it contains - but also a product consistent with the consumer's values. These values increasingly focus on sustainability and business ethics as part of a brand's image.



We have previously explored how the use of artificial intelligence and big data analysis is being used by retailers. Artificial intelligence and machine learning can help to forecast sales, reduce waste, and deal with shrinkage: the mismatch or loss of stock due to damage or stocktaking errors. This was considered inevitable until recently, but is now something which businesses have a real hope of eliminating entirely.



In this article, we look in particular at the increasing value placed by consumers on provenance and ethics within supply chains, and how new technologies can help businesses demonstrate transparency and their ethical credentials. We examine how businesses are using new technologies to optimise their supply chains, not only to drive "just in time" and other operational efficiencies, but also to support broader brand value.

FROM CONTAMINATION, to provenance and ethics

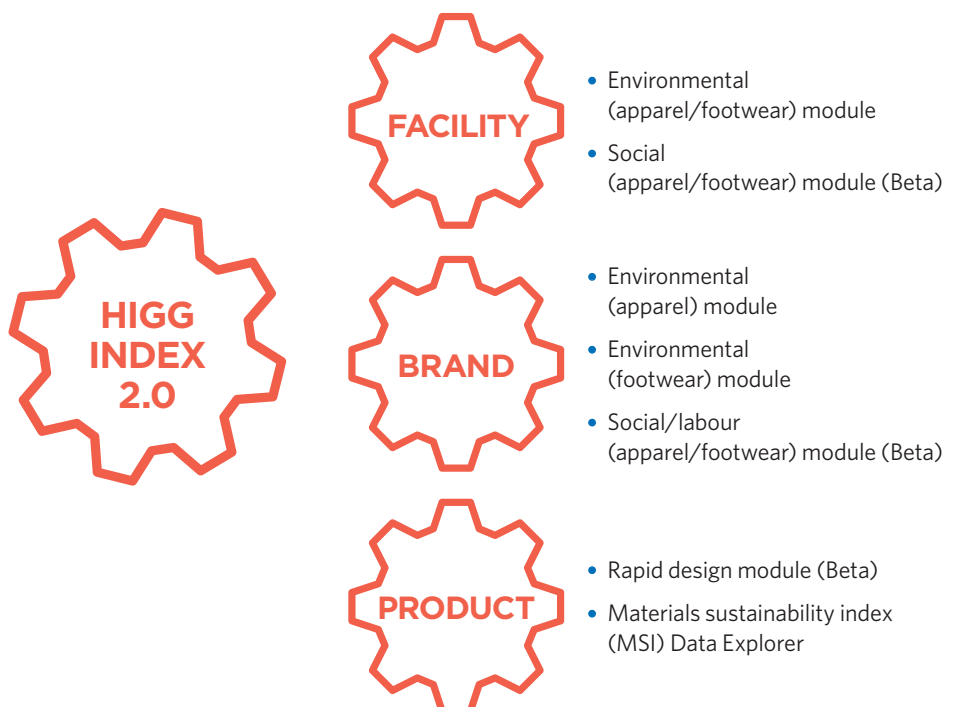
In 2013, there was public outcry in the UK over the presence of horsemeat in the UK meat industry. More recently, a pesticide called Fipronil was detected in eggs distributed in a number of EU countries, resulting in significant negative publicity – not only for primary resellers of eggs, but also for businesses in the baking segment and other secondary users of egg derivatives. The challenges involved in preserving the integrity of your supply chain are particularly acute where products go through several intermediary stages and jurisdictions.

Both of these scandals undermined consumers' trust in the information provided to them on product labels. However, these are merely high profile examples of a much broader trend: consumers now demand transparency not only to ensure that produce is free of contamination, but also to ensure that brands are delivering on their broader value proposition.

There are also some areas where traceability requirements are mandatory, such as for food and feed, requiring suppliers to ensure that as far as practicable products contain no GM ingredients. Similarly, producers of organic food or produce are required to comply with rigorous traceability requirements if they wish to have organic accreditation. A number of consumer businesses have responded to the challenge in recent years by making ever more robust public commitments in relation to the integrity of their supply chains – in effect, holding themselves to a higher standard, as a

means of driving best practice internally. For instance, as a major user of palm oil, Unilever founded and co-chairs the Roundtable on Sustainable Palm Oil, a cross-business group which seeks to improve sustainability in the palm oil industry. Unilever has also set ambitious targets, such as the goal of achieving 100% physically certified palm oil and its

derivatives for the company's core volumes, mandatory human rights requirements, and a no-tolerance approach to deforestation. By requiring suppliers and their third parties to verify that the palm oil they supply to Unilever meets this Policy, Unilever aims to encourage better practices throughout the supply chain.





Selecting and monitoring suppliers

The ways in which businesses select their partners and suppliers, and the ongoing monitoring of supplier performance, can help to push more sustainable practices down the chain. In 2012, the Sustainable Apparel Coalition (SAC), a global alliance of fashion, manufacturing and retail companies, launched a pioneering set of self-assessment tools to help businesses measure and improve their environmental, social and labour impacts at the brand, product and individual factory level.

H&M, a founder member of the SAC, was one of the first global fashion companies to

incorporate the Higg Index facility modules (both environmental and social) into their supply chain. This includes applying it to all of their first and second tier factories, producing 56% of the H&M group's total volumes.

Ultimately, for businesses using tools like the Higg Index modules, the aim will be to translate the resulting data into something that consumers can easily access. For instance, H&M is developing a labelling system that allows customers to compare the sustainability of products across brands. The more businesses use tools like the Higg Index, the easier it will be to establish industry standards and improve transparency at the consumer level.

Can technology transform the way that businesses tackle these challenges?

Public commitments, industry-wide bodies and improved supplier terms are the traditional means of addressing consumers' supply chain demands. Businesses are also investing in, or investigating, new technologies to improve their sustainability and ethical standards, and ultimately to safeguard their brands.

For example, the quest to become "100% circular" is being driven by technology. The idea of a circular economy has been defined by the Ellen MacArthur Foundation as replacing a "take, make, dispose" approach with a "restorative and regenerative" model that aims to "keep products, components, and materials at their highest utility and value at all times". For most businesses, this means a commitment to reducing waste through increased reuse and recycling.


Nike is one example of a business that has invested in technology to develop a suite of sustainable materials, including recycled polyester from plastic bottles and new fabrics that require significantly less water.

H&M is also using technology to drive innovation in this area. The H&M Foundation's partnership with The Hong Kong Research Institute of Textiles and Apparel aims to develop technologies to recycle blended textiles into new fabrics and yarns. In the long term, H&M's goal is to turn all products that can no longer be used into new materials.



"The fashion industry needs to reinvent itself to operate within the planetary boundaries and become circular. Investments in research, innovation and disruptive ideas are key to make the technological and operational leaps required"

ERIK BANG
INNOVATION LEAD
H&M FOUNDATION



...blockchain technology could be used to record all the transactions that take place from the start to the end of a supply chain

Blockchain and Counterfeiting

According to OECD sources, imports of counterfeit good to the UK accounted for around \$9.3 billion in 2013. Could innovative solutions, such as using the blockchain technology, be found to reduce the flow of counterfeits? The technology has already been used in the diamond sector to prevent "blood diamonds" from infiltrating the market by London start-up Everledger and recently DeBeers announced at the start of the year its aim to implement the first industry-wide blockchain to track the stones.

On the fashion scene, New York/Shanghai fashion brand BABYGHOST showcased garments in their Spring/Summer 2017 collection embedded with VeChain chips, enabling customers to scan the clothing to retrieve information about it. The principle behind VeChain's cloud product management solution is that a product is assigned a unique ID, which is stored in the blockchain, and placed on the product with an NFC chip, RFID tag or QR code. VeChain has already been used in respect of various categories of products such as fine wines and tobacco in China.

Weaving in blockchain technology within products could be a useful tool on many levels. As an authentication tool, it may help customers ascertain whether products acquired are legitimate or fakes. The technology may also help customers track the provenance of the products and the associated supply chain, and provide unique information such as whether goods may have been stolen. Finally, it is likely to provide a useful tool for enforcement purposes and customs may find it helpful to determine whether imported goods are counterfeits.

Blockchain

Blockchain technology may be best known for its implementation as part of the digital Bitcoin currency. However, it has the potential for far wider application, including in consumer supply chains.

As a decentralised ledger that logs a growing list of ordered records (known as blocks), blockchain technology could be used to record all the transactions that take place from the start to the end of a supply chain. Since each block is timestamped and linked to previous blocks, the ledger would serve as an irrefutable record of each supply chain stage. This would allow retailers and manufacturers to trace constituent components of a given product, creating greater transparency and reducing the costs of current supply chain auditing.

It could also reduce marketing costs. The Co-op, for instance, has been working with blockchain start-up, Provenance, as a means of showing how and why their tuna is sustainable, and Walmart is working with IBM on a project to digitally track the movement of pork

through their Chinese suppliers. These initiatives will ultimately allow consumers to explore the product's journey themselves, rather than relying on the brand to take them on that journey.

Returning to the horse-meat and Fipronil scandals, blockchain technology can also be used to highlight risks of contamination in the supply chain. The easier it is for a company to track each ingredient and identify the responsible party at each stage, the better-equipped the company will be to engage with, and ask questions of, those parties. The same logic applies to the risks posed by counterfeit products. BlockVerify, a company that uses blockchain technology to improve anti-counterfeit measures, is currently offering such services to the pharmaceutical and consumer electronics sectors.

Businesses are embracing blockchain on the journey to greater transparency and the increased value proposition that comes with it. However, as with any early-stage technology,

there is still uncertainty as to how blockchain will fit into or disrupt the current consumer goods framework. In order to realise the benefits of blockchain technology across the supply chain, it first has to be implemented. This becomes a complicated exercise when products track across multiple jurisdictions. If commodities at the beginning of the supply chain are not recorded on the ledger, the record will remain incomplete. In some cases there will also need to be continued reliance on physical inspection before a block can be verified, re-introducing the risk of human error or fraud.



"Supply chains are a powerful lever for increasing customer satisfaction and loyalty, reducing costs, and achieving competitive advantage. Increasing supply chain complexity, coupled with higher service level and cost efficiency expectations, is forcing business leaders to rethink their approach to supply chain configuration and management. Technology will be a key part of this, and businesses which can adopt and optimise new technologies more effectively than their competitors will be able to pass on savings to their customers – or returns to their investors"

SHAUN BROWNE
MANAGING DIRECTOR
HOULIHAN LOKEY'S CONSUMER, FOOD & RETAIL GROUP



CONCLUSION

No successful consumer business neglects its supply chain, and it is no coincidence that many of the most successful businesses also demonstrate best-in-class logistics management. It will continue to be critically important for businesses to invest in new technologies to drive efficiencies and reduce risk: not to get ahead of their competitors, but to avoid falling behind.

The new challenge for consumer businesses is recognising the brand value associated with effective supply chain management, and demonstrating this to consumers. Businesses will need to enable their logistics and marketing teams – often remote from each other within organisations – to work together to prove to customers that they are delivering what consumers care about. Businesses will need to identify what matters to consumers, in

relation to provenance and supply ethics, and develop metrics and methodologies to build this into their product portfolio. And the R&D and technology procurement teams will need to work closely with marketing and logistics to deliver these gains. All of this will require senior leadership, enthusiasm, and organisational commitment – but the benefits will be well worth the effort.

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This article is part of a **Future of Consumer series** on upcoming issues affecting the Consumer Sector. For other articles in this series see the **Future of Consumer** pages of our website or contact Rachel Montagnon



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