

Disruptive Retail

Technology and supply chains – FAQs

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- ◆ Retail supply chains remain complex and vast – yet the majority of retailers disclose little regarding their supply chain
- ◆ We believe disruptive technology can enhance transparency – a key ESG consideration among investors for the industry
- ◆ We discuss 10 frequently asked questions from stakeholder conversations to gain further insight into this theme

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Disruptive technology in the retail sector. Some retailers are tackling one of the sector's most prominent ESG issues – supply chain traceability – in a brand new way. Disruptive technologies such as blockchain, artificial intelligence (AI) and element analysis are being piloted, and in some cases deployed, across some mainstream companies. These technologies allow the opportunity to better monitor, trace and account for the vast and complex supply chains that make up the industry.

Ten common questions. Supply chain traceability is indeed a consideration high on the agendas of many sustainability investors in the sector. In this report, we highlight and answer common questions based on conversations with various retail and supply chains stakeholders:

1. Have supplier list disclosures increased since 2020?
2. How does the tier structure and technology work together?
3. Are any regulations actually catalysing the use of these technologies?
4. How are social risks addressed via technology integration?
5. How widespread is technology adoption at present?
6. Is there a threat to jobs with increased technology in the supply chain?
7. Is there a connection between retail and smart farming?
8. Is there a risk that these technologies are a tool for more greenwashing?
9. Are technology-enabled supplier lists actually beneficial for sustainability progress?
10. Are any other sectors using this technology in this way?

We believe the deployment of such technologies will be of significant importance in years to come, becoming a key ESG consideration for investors. Catalysts for this change include regulations, consumer attitudes and industry developments/ambitions.

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Disruptive retail FAQs

Defining the tiers

First tier disclosures up to 47% of retailers in 2021

Further up the tier structure, the less knowledge

Related regulations on the rise?

With greater transparency comes greater knowledge

Incentives for suppliers to improve social conditions

Predominantly pilot stage developments

1. Have supplier list disclosures increased since 2020?

Supply chain disclosure varies by region and supply chain stage. Typically, disclosures by brands are better the lower down the supply chain (i.e. closer to the consumer), at Tier 1 supplier stages. By contrast, disclosures of raw material suppliers – i.e. Tier 3 suppliers, is much poorer. Across all stages, disclosure rates have generally improved over time.

In 2020, 40% of retailers disclosed their **Tier 1 suppliers**. This increased to **47% in 2021**. Disclosures of **processing facilities** rose from **24% to 27%**, and **raw material suppliers** rose from **7% to 11%**. Although significant progress into 2021 relative to previous years, still, less than half of retailers disclose even their immediate suppliers.

2. How does the tier structure and technology work together?

As each retailer has a unique supply chain and varying levels of tiers, there is **no one-size-fits-all approach** to disclosing a supply chain. Generally, the further up the scale of the tier structure, the less interaction the retailer has with the supplier.

Technology can assist retailers in mapping their supply chains, going **beyond just supplier lists**. Without mapping the entire supply chain, there is often little knowledge of the where fibres and raw materials originate from, let alone the environmental and social conditions they exhibit. Technology such as **element analysis** allows retailers to track the exact source of their products. Rather than simply supplier tier lists, retailers can actively track their supply chains and keep **up to date records**.

3. Are any regulations actually catalysing the use of these technologies?

While no regulations are directly requiring the use of specific technologies in supply chains, we have noticed a significant increase in the regulatory environment with regards to disclosure requirements. We think larger companies particularly will therefore increasingly rely on technologies to comply with the evolving regulations and guidance.

4. How are social risks addressed via technology integration?

Although technology alone cannot directly impact working conditions or human rights issues, technology provides firms with the opportunity to create **a clearer picture** of where their product is coming from. In doing so, companies have greater knowledge of their supply chain, the journey of the product, and which individuals are associated with the company and supply chain.

With greater adoption of technologies, suppliers may also be **more inclined to, or able to, improve the social aspects of their business and brand**. Ultimately, the supplier aims to make money from retailers selecting them to manufacture their garments. With greater exposure to their practises, suppliers with poorer standards will be identified, thus increasing the incentive to perform well regarding acceptable social conditions. Longer term, we believe this could be incentivised via the use of third-party reporting systems such as the Higg Tools and Index. Introducing such a framework, coupled with technologies that enable better reporting, and monitoring of this reporting, could become a powerful means for improvement in social risks across the industry.

5. How widespread is technology adoption at present?

We see examples of retailers utilising technology in their customer facing aspects of their business, with the use of AI in stores and virtual reality (VR) online. However, introduction of this technology into the supply chain is being implemented **predominantly at the pilot stage**, mostly by the **largest retailers**. Nevertheless, there is an **expectation of a domino effect** from viewing success in other firms. Many retailers **share suppliers and facilities**, creating the ability to integrate at a cheaper cost if already done so at a fraction of their supply chain. Additionally, there is an expectation that the investment cost of these technologies will decline in the longer term.

Opportunity for upskilling
6. Is there a threat to jobs with increased technology in the supply chain?

Although retail salespersons have a **92% risk of job automation**, within the supply chain, we see **less risk regarding this social concern** currently. The technology we discuss is aimed at increasing the transparency of the supply chain; therefore, the risk to job automation is lower. However, as with any adoption of technology, the risk of robotics replacing certain roles is present. Nevertheless, the supply chain will always require **human judgement** and with the deployment of more advanced technology integration, **new roles will emerge**, with the **opportunity for upskilling and education**. There is the potential that automation can result in a greater number of roles available in the industry, and the challenge will be the ability to work alongside this change.

Collecting data and improving sustainability
7. Is there a connection between retail and smart farming?

Enhancing the use of technologies in agriculture not only helps increase yields to tackle **demographic challenges**, but helps reduce the impact the sector has on the **environment**, and provides **up-to-date activity monitoring** to enhance transparency. Applying these technologies to farms producing plant and animal fibres provides the ability to collect data on **assets, geography** and **environmental conditions**, enhancing the sustainability of the supply chain. Identifying the first stage ensures quality product via smart technologies, creating an opportunity for retailers to provide **visibility** and **traceability** of their products. As with many technological advancements, challenges such as cybersecurity, investment cost and identifying the most appropriate technology remain.

8. Is there a risk that these technologies are a tool for more greenwashing?

Potentially... however, we shall have to see. The challenge here is that we do not have much information at the moment. There is no information on cost of investments and how they are specifically being deployed. There is potential for companies to employ supply chain technology and publish information, on a voluntary basis, to appear 'greener' than they are. Purposely selecting parts of the supply chain that the retailer knows has effective green credentials can make a firm seem more sustainable than it is. However, the regulatory drivers mean that, eventually, companies will have to disclose more and more, and technologies may well be critical for this.

Additional important information required
9. Are technology-enabled supplier lists actually beneficial for sustainability progress?

Technology can shine a light on specific facilities making investors and retailers (and the actual facilities) directly more accountable, resulting in sustainability benefits. However, quite often, these lists provide some but not all of the information that investors need. It does not provide information regarding social audits, or case study examples of how an issue was discovered and proactively fixed/resolved. That is also very important information that investors should uncover from companies too, and technology alone does not provide this information. It is a very powerful tool for many parts of the solution but it is not the whole solution – awareness, education and qualitative information is also critical.

Not only applicable to retail
10. Are any other sectors using this technology in this way?

The flexible and customisable nature of the various technologies we have discussed allows applicability to a range of sectors. The food industry is an observable beneficiary due to the similarities between itself and garment supply chains. Technology such as blockchain, AI and element analysis can assist the sector in tracing its produce and improving transparency.

Conclusion

Improving the transparency of the retail supply chain is a complex task, with many stakeholders and moving parts. The main catalysts driving the change are regulation, consumer attitudes and industry developments/ambitions. We believe technology has a role to play in assisting this change; however, we acknowledge the challenges that remain with integration and addressing social and environmental concerns. Nevertheless, as the deployment and integration of such technology increases, we hope to observe its effectiveness and be able to analyse sustainability successfully across the entire supply chain.

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