How Retailers Can Reduce Waste and Become More Sustainable with RFID

![nedap logo]

The Fashion Industry's
Environmental Impact
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While the fashion industry does immeasurable good employing many people and clothing the world's population, it is also responsible for approximately 10% of global carbon emissions, making it the 2nd most polluting industry (World Economic Forum, 2020 – hereafter WE Forum). This trajectory is predicted to continue given the amount of apparel produced has roughly doubled in the last twenty years (WE Forum, 2020). Because of increasing awareness around these facts, retailers are focusing more and more on sustainability by setting ambitious goals to improve their environmental and social impact.

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The rise of **Conscious Consumerism**

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Conscious consumerism is when buying practices are driven by a commitment to making purchasing decisions that have positive social, economic, and environmental impact.

In other words, it's a movement whereby consumers vote with their money by buying ethical products, avoiding unethical companies, and sometimes not purchasing at all. So, a socially or environmentally conscious consumer will think whether consumption is necessary. Then if they decide to buy, they look at who is providing the product and how the product impacts each environment touched during its lifecycle.

Eliminating impulse buys and opting for companies and products that create positive impact, consumers communicate a preference for beneficial businesses and products.

Conscious consumerism (otherwise known as ethical consumerism or green consumerism) is a trend that is growing more and more popular by the day.

Turning to **Sustainability** in the Wake of COVID–19

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Amongst the many COVID-19 related changes the retail industry is experiencing, consumer sentiment is high on the list. Two-thirds of consumers say sustainability has become more important in order to limit climate change and 88% think reducing pollution should be paid more attention (McKinsey, 2020).

One way this shows up is consumers increasingly wanting to have more insights into the sustainability of retail supply chains by having access to information such as product origin. Partially because of this demand, 65% of retailers are expecting to achieve full traceability from fiber to store by 2025 and are increasingly turning to technologies like RFID to make the lifecycle of products visible and traceable (McKinsey Apparel CPO, 2019).

It is estimated that 58% expect to adopt RFID to achieve traceability in the next 5 years, while 13% already have (McKinsey Apparel CPO Survey). The added benefit of supply chain transparency is also a company's increased ability to ensure operational resiliency, which the pandemic has shown becomes more important during events causing global stress (Deloitte).

A drive towards supply chain transparency combined with the fact that investors are increasingly prioritizing companies which quantifiably combat climate change is causing the industry to amplify their sustainability efforts (CNBC, 2020). It's usually the case that a painful impetus is required to spur significant shifts in society that bring about lasting change. COVID-19 is supplying that pain point and thus driving business activity and investments in the direction of sustainability (Deloitte).

Excess Inventory Leads to **Environmental and Financial Waste**

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One of the core sustainability challenges the fashion industry has is that of excess inventory or overstock. Overstock, simply put, is the amount of inventory leftover which doesn't sell at full price, must be marked down, transferred, or eventually disposed of in order to clear. When this inventory sits in a DC or stockroom for extended periods of time without selling, it is frequently referred to as deadstock.

This deadstock never makes it into the hands of consumers and can end up being incinerated or going to a landfill instead. Unfortunately, the amount of product that doesn't sell and was therefore overproduced can account for up to 40% of all clothing (Vogue 2020). This issue is only amplified by the amount of textile waste that happens during the production process and by the issue of ever increasing returns (Vogue 2020).

> *i* The amount of products that doesn't sell and was therefore overproduced can account for up to 40% of all clothing. (Vogue 2020)

Overbuying → Overproducing → Overstocking → Waste

The Benefits of RFID Also **Include Sustainability**

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While RFID has many benefits for retailers including increased sales, enabling omnichannel, and improving customer satisfaction, the technology also has sustainability benefits which are often unknown or forgotten. It's not without reason that the World Economic Forum states

> **84%** of IoT deployments are **currently addressing, or have the potential to address, the Sustainable Development Goals** as defined by the United Nations (WE Forum, 2018).

Three of the Sustainable Development Goals that potentially relate directly to the benefits RFID can bring the retail industry include;

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

Some of the specific sustainability benefits RFID brings the retail industry include supply chain transparency, reduced transportation due to more efficient allocations and optimized fiber recycling by helping to identify where a garment comes from, what material it consists of, and the journey it took through the supply chain. Essentially, helping to identify where a garment comes from, what material it consists of, and the journey it took through the supply chain. (Denuwara, 2019).

RFID is Key to **Helping Retailers Tackle Their Waste Problem**

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RFID inventory management solutions allow retailers to tackle their waste problem from multiple angles. It PREVENTS overstock from happening in the first place by allowing retailers to reduce their total stock holding by purchasing less while still selling more. It OPTIMIZES products already allocated to stores in order to ensure they sell through the use of functionalities that improve inventory management-related store processes. For example making sure products from the stockroom are refilled to the sales floor on time thereby making sure they have a chance to sell and don't end up being wasted.

RFID Helps Retailers **Prevent Overbuying and Overproduction**

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One of the primary benefits RFID provides to retailers is of course the ability to dramatically increase inventory accuracy from an average of 74% to upwards of 98,5%. Having accurate, item-level data allows retailers to increase their confidence in what they have and in turn lower their safety stock (Denuwara, 2019). Just by increasing inventory accuracy, RFID can contribute to a reduction in stock holding. One case study reported a total stock holding reduction of between 2-13% resulting in such benefits as reduced business borrowing, reduced risk of writing off product as damaged or marking them down to clear and reduced storage space needed to house products (Beck, 2018).

When less products are purchased, less products are unnecessarily produced in turn lowering

carbon emissions, water use, water pollution, land use, packaging materials used and more throughout the entire supply chain. If the amount of overproduction can be reduced, a retailer is able to make strides towards many of their other sustainability metrics as each item produced and pushed through the supply chain increases the environmental impact of a retailer.

Less Waste MEANS LESS

- AIR POLLUTION
- GREENHOUSE GAS EMISSIONS
- WATER CONSUMPTION
- WATER POLLUTION
- LAND USE
- MATERIALS USED

RECYCLE WITH US GET 10% OFF

100% ORGANIC

100% RECYCLED

The Impact of RFID on
Sustainability Objectives
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" Filippa K

Our challenge is to provide the full brand experience throughout all channels. Product availability is key to achieve this. One major objective was to have a lean fulfillment process, with only the products on shelf that are strictly needed. **This way, we minimize waste and this is also what our community expects us to do.** RFID technology helps us to always have the right products available online and in our stores."

– Emelie Berggren,
Fulfillment Director
at Filippa K

" GANNI

At GANNI, we feel the obligation to minimize our social and environmental impact. With every investment we do, we question ourselves **'Do we really make a difference here or can we do better?' Increasing customer satisfaction is also an important driver for us and we want to show that the fashion industry can do better.** Implementing RFID allows us to get full visibility of stock in our stores. This builds the fundamentals for omnichannel services, like ship-from-store. The opportunity to consolidate store and DC inventory allows us to use items where we need them. This eliminates overstocking and overproduction, while we make sure our customers are still happy with us.

– Karolin Stjerna,
Supply Chain Director
at GANNI

RFID Helps Retailers
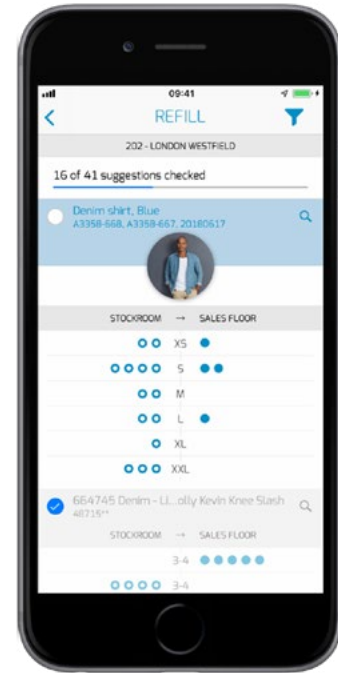## Optimize Their Stock to Reduce Overstocks and Waste
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Additionally, as retailers make sure products from the stockroom are refilled on the sales floor on time, they are able to make sure the most popular stock keeping units (SKUs) are present on the sales floor. This optimizes the chances of those products selling and preventing them from becoming overstocks. Without refill, it is more likely that these SKUs can sit undetected in a stockroom increasing their likelihood of becoming damaged or outdated.

Another RFID use case is Display Compliance. This helps retailers ensure the right products are available on the sales floor and not just the right sizes. It does this by comparing popular products at neighboring stores. Such a functionality can give retailers powerful insights that increase the likelihood a product will sell in a specific store and therefore not become waste.

RFID Also Helps Retailer
Allocate More Efficiently and Reduce Unnecessary Transportation
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As inventory accuracy improves, the need for moving product to free up space due to overstocking reduces. Due to the pull model of inventory allocations RFID enables, a retailer is able to only allocate product to a store where that stock is currently being purchased. An additional allocations benefit includes minimizing the distance a product must be shipped to a consumer in the case of online sales. For example, if a retailer

RFID-based refill suggestions can **highlight SKUs which are only in the stockroom to put on salesfloor thereby preventing those products from becoming overstocks.**

can rely on their stock counts, then they are able to open up the store's inventory to fulfill online orders. In this way, the retailer can either ship the product from the DC or from the store depending on which one is closest. RFID also allows retailers to reduce safety thresholds when unifying stock pools between DC and stores, thereby increasing digital availability and in turn lowering the chance of overstocking.

RFID Makes **Just-Right Inventory** Possible
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The environmental and financial waste caused by overstocking was seen as necessary in the past as it allowed retailers to always meet customer needs. This "just in case' approach worked to fulfill customer orders, but now with the wide adoption of RFID driven by the need for increased inventory accuracy, it is possible to reduce safety stocks and thereby reduce environmental and financial waste as well. Inventory visibility and accuracy allows retailers to reduce their total stock holding while still selling more, allocate products to stores which truly need them,

and lower safety thresholds thereby increasing digital merchandise availability and broadening the chances a product has to sell.

While this industry wide challenge of inventory excess is widely known, few knew exactly what to do about it as the reasons for this happening are vast. Some of the key contributing factors include lack of visibility into what actually exists in stores, wanting to have the right product always available to customers, and insufficient retail store processes. Luckily, RFID can and does help retailers on all three of these fronts.RFID and inventory visibility can also unlock additional insights including from a consumer's perspective, such as by allowing them to check a product's provenance.

Want to optimize
your stock and reduce waste?

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Nedap Retail offers perfect inventory visibility- full control, no waste, no losses. Interested in learning how to leverage RFID to reduce environmental and financial waste in your organization? We want to partner with you on your sustainability journey.

About **Nedap**

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Every industry has its own unique challenges and opportunities. Nedap Retail creates unique solutions, geared to your industry, to help you take full advantage of social, mobile, cloud, and analytics as you transform your business.

Contact Nedap nedap-retail.com/contact

Resources:

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