

Whitepaper
Speed of Checkout

How RFID-based EAS contributes to faster speed of checkout

The impact of RFID on speed and convenience of checkout explained.





Contents

Introduction	3
What is RFID checkout?	4
How RFID checkout compares to barcode scanning and removing hard tags	6
How hard tags and labels affect checkout time	8
Get the most out of your employees, where they benefit the business	10

Introduction

In recent years, retailers have been massively adopting RFID technology. This is driven by the quest for operational efficiency, as well as the improved customer experience that RFID solutions can provide. The benefits of RFID in fashion retail center around product availability and omni-channel capabilities, but it can also be used for more customer-friendly loss prevention, also known as electronic article surveillance (EAS). The implementation of RFID also opens the opportunity to increase the speed of checkout. This allows retailers to offer fast self-checkout services and minimizes the time spent at an employee-operated checkout.

One of the most frequently mentioned objectives for minimizing time spent at the checkout is to improve customer-friendliness. Also, a growing number of retailers use RFID to prevent long lines at the checkout, in order to be compliant with Covid-19 regulations restricting the number of visitors in stores.

What is RFID checkout?

A retailer that has implemented RFID typically uses product labels with an embedded RFID tag, each of which contains a unique electronic product code (EPC). Rather than handling each product individually, as is the case with

traditional barcode scanning, an RFID reader can read multiple labels at once without needing a line of sight to the label. An RFID-based checkout can be performed either by the store employee at a register or by the customer at a self-checkout.



DECATHLON

The perfect balance between customer experience and security

Decathlon is one such retailer that is adopting RFID self-checkout. Their customers place all their selections in the RFID-enabled bin, which recognizes each item based on its unique EPC and feeds this information to the POS terminal. After the items are paid for, these unique labels are cleared to leave the store, so they are recognized as sold and do not trigger an alarm from the RFID-based EAS system.



How RFID checkout compares to barcode scanning and removing hard tags

In theory, an RFID-based checkout is faster than one with barcode scanning, simply because it eliminates the need to scan all the barcodes one by one. To put this to the test, we picked

three large fast fashion retailers with different checkout processes and tested the average checkout speed. All checkouts were performed by store employees

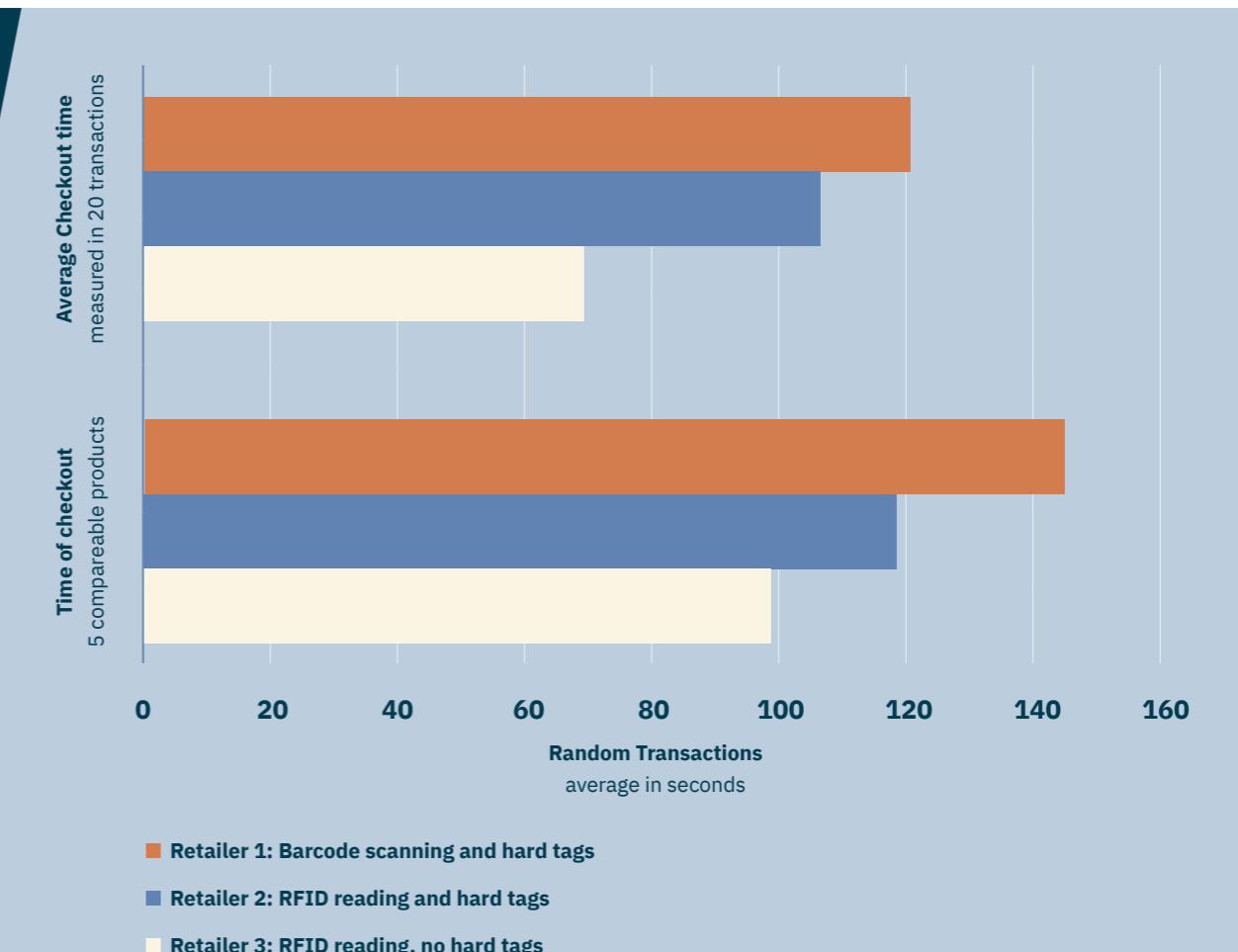
Based on this example, it seems that half of the time savings is achieved through faster scanning using RFID and half by eliminating the need to remove the hard tag. Even greater time savings could be attained by using a bin to scan all items at once.

An unexpected outcome of the test was that checkout times were shorter for self-checkout than for employee-operated checkout in fast fashion retail. The main reason seems to be that customers do not take the same care folding and bagging their clothes as do store employees.

	Barcode scanning or RFID	Hard Tags	5 items avg (seconds)	Random transactions avg (seconds)
Retailer 1	Barcode scanning	Yes	146	121
Retailer 2	RFID	Yes	118	106
Retailer 3	RFID	No	94	69

We bought the same five items (jeans, shirt, t-shirt, coat and socks) at each store and timed the checkout process. We also timed 20 random transactions. This was repeated at several different retail locations for each brand.

The results were clear: the use of RFID scanning with embedded tags, as opposed to either solution with hard tags, reduces the average transaction time by almost half. This means that, on average, staff spend only half as much time performing checkouts.



How hard tags and labels affect checkout time

Along with barcode scanning, the removal of hard tags also took a significant amount of time during the checkout process. The fewer products that are hard tagged, the faster the checkout process. Some retailers chose not to use hard tags at all, and they benefit from the fastest possible checkout process and the option to provide a seamless self-checkout experience. Whether this is a good choice will vary for each retailer, situation and area.

Retailers that got rid of the hard tag did not remove security completely. They eliminated the hard tag and are now using the smart RFID tag for EAS. Even though this is not a hard tag, there are various benefits of RFID-based EAS:

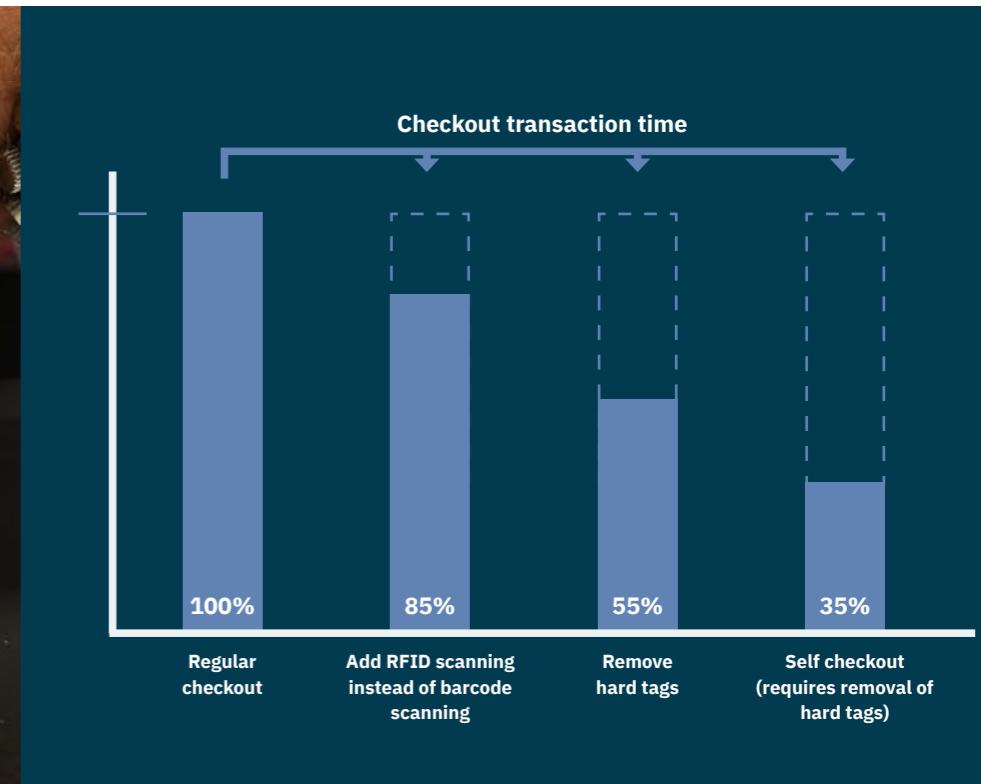
- Time savings by eliminating the manual hard tagging process in-store.
- When source tagging is applied, all merchandise enters the store secured (100% of store inventory is secured).
- Optimization of loss prevention strategy based on item-level data: high-risk items can be placed closer to the checkout or an RFID hard tag can be attached to the most frequently stolen items as a visual deterrent.

Using RFID loss prevention data it is possible to get an overview of which products leave the store at what moment. This analysis can identify the “hot” items (those that are most frequently lost) and the value of those items. Based on this information additional measures can then be implemented, like hard tags just on items for which they are deemed most necessary. If the conclusion of this analysis is that just 5-10% of the items need to be hard tagged, significant time savings can be achieved during the checkout process. The percentage of items requiring hard tags may, of course, differ per store.

What about fast returns?

Using RFID for checkout also makes it possible to improve the speed and security of the return process. Scanning the RFID label at the POS terminal generates data about whether, when and where a product is returned. It even makes it possible to identify in real-time when an item is returned that was never sold, for prevention of return fraud. The return process could even be arranged so that customers deposit their returns in a bin and their refund is automatically transferred to the account they used for the purchase.

9/12

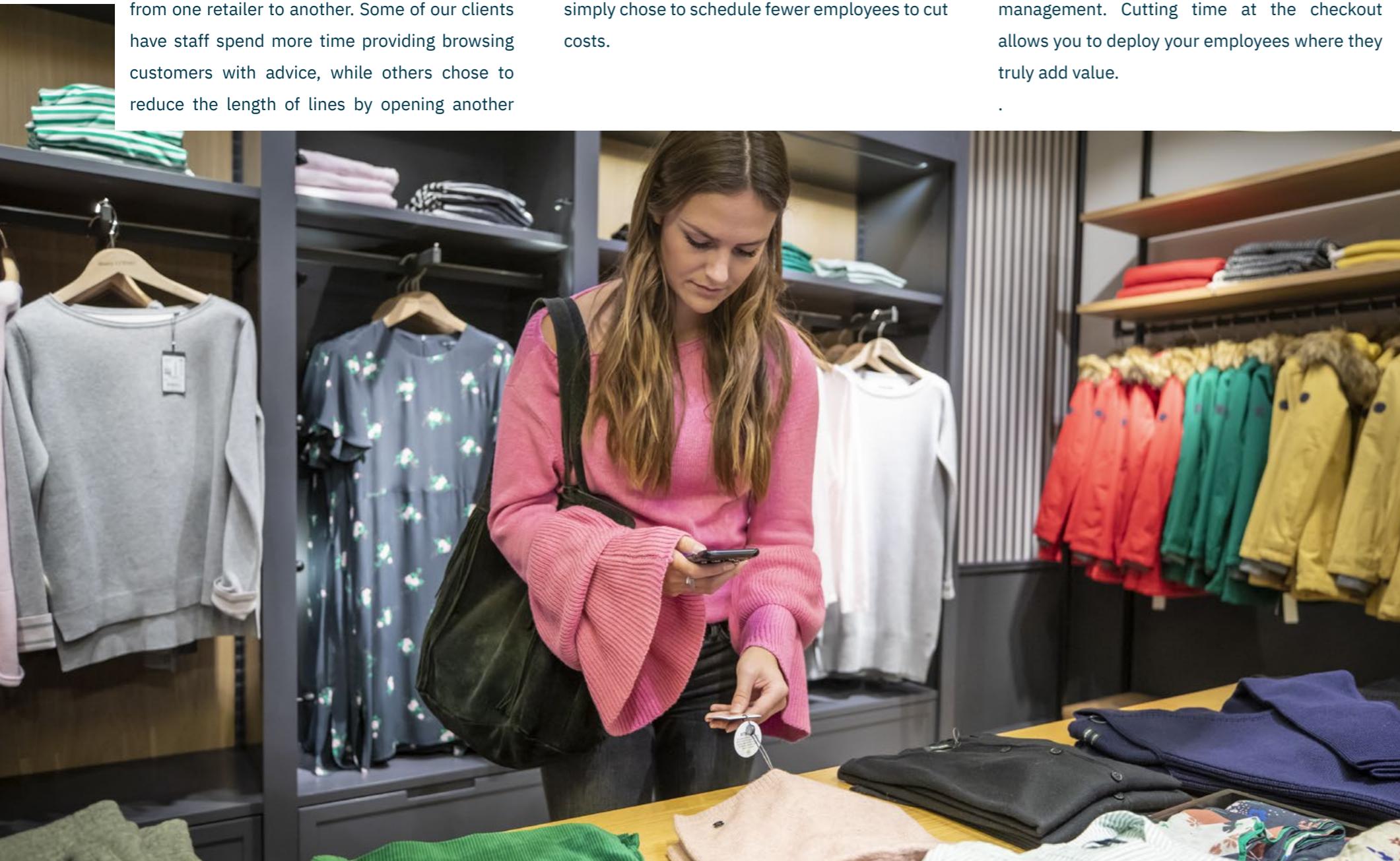


Get the most out of your employees, where they benefit the business

By cutting the checkout time in half you will have freed up valuable employee time. Then you can start thinking about where they can add more value to your business. Obviously, this will differ from one retailer to another. Some of our clients have staff spend more time providing browsing customers with advice, while others chose to reduce the length of lines by opening another

register during busy hours. One retailer told us that they are now using this freed-up employee to hand-pick web orders that are being shipped from the store (BOSS), while another retailer simply chose to schedule fewer employees to cut costs.

Altogether, RFID provides a huge opportunity to reduce checkout times and improve the customer experience at the checkout for fashion retailers that are already using RFID for inventory management. Cutting time at the checkout allows you to deploy your employees where they truly add value.



CURIOS HOW MUCH
TIME YOU CAN SAVE PER
STORE?

ASK OUR
EXPERTS!



Questions?

We have the answers

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