

## Retail revolution:

How the Covid-19  
pandemic transformed  
technology investment

## About this report

This report looks at the current state of play within retail, and how the last 18 months has impacted the sector. The report has been drafted using European wide research from Savanta commissioned by Brother.

The research has been combined with expert insights from retailers in the UK and Germany, as well as insight from Paul Hamblin, industry expert and editor of Logics Business Magazine.

## About Savanta

Based in London and New York City, Savanta are experts in data collection, research and consultancy. The company was created through numerous specialist agencies coming together to develop a holistic research offering intended to cover a wide range of sectors and geographies.

Savanta utilise both qualitative and quantitative research methods to uncover data and generate robust, actionable insights. They aim to inspire change through their work and help clients to make evidence-based decisions.

## About Paul Hamblin

Paul Hamblin is an experienced writer, editor and commentator across the UK and European logistics spectrum. He has visited and interviewed industry leaders in the UK, Germany, Netherlands, France, Sweden, Denmark, Italy, Spain and Belgium.



## Contents

- Exploring retail technology trends across the continent
- What technologies did retailers invest in during the pandemic?
- Immediate post - pandemic plans
- Moving forward - retailers' investment objectives
- Strategic directions to consider for long-term success
- Logistics and home deliveries
- Making sure customers are happy, wherever they shop
- Digital transformation must be constant

# The pandemic put retailers into survival mode

Overnight, consumer behaviours changed, supply chains were disrupted, and stores were forced to close their doors. In response, retailers turned to technology to support the transition out of perhaps the most economically disruptive event in living memory.

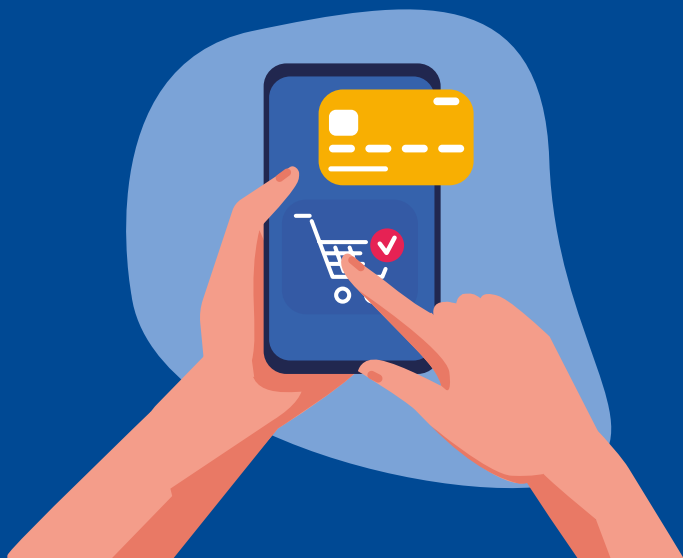
To understand the seismic impact the pandemic has had on retailers, we wanted to find out how businesses in the sector responded and what they are focusing on. We wanted to identify which retail technologies had attracted investment and how retailers' changed priorities when looking at planned and future spend.

To do this, we commissioned a survey of decision makers at retailers across Europe by market research firm Savanta. This research includes contributions from highly regarded retail experts and journalists from across the continent. They've shared their experiences and what they're planning to invest in next. We've anatomised some of their statements due to their potentially commercially sensitive nature.

They told us how the crisis led to an overnight change in customers' shopping behaviours, prompting the acceleration of a number of retail technology trends that were already in play.

Across Europe, retailers were forced to respond to three key trends brought about by the pandemic: **cashless transactions (75%), rising e-commerce demand (73%) and disruption to supply and demand (70%).**

We're sharing their insights in this report to help support the sector's ongoing recovery and hope you find it useful in building a deeper understanding of technology investment priorities and how they can boost efficiency, productivity, security and sustainability in your organisation, too.



# 75%

of retailers say the pandemic has accelerated the adoption of new technologies

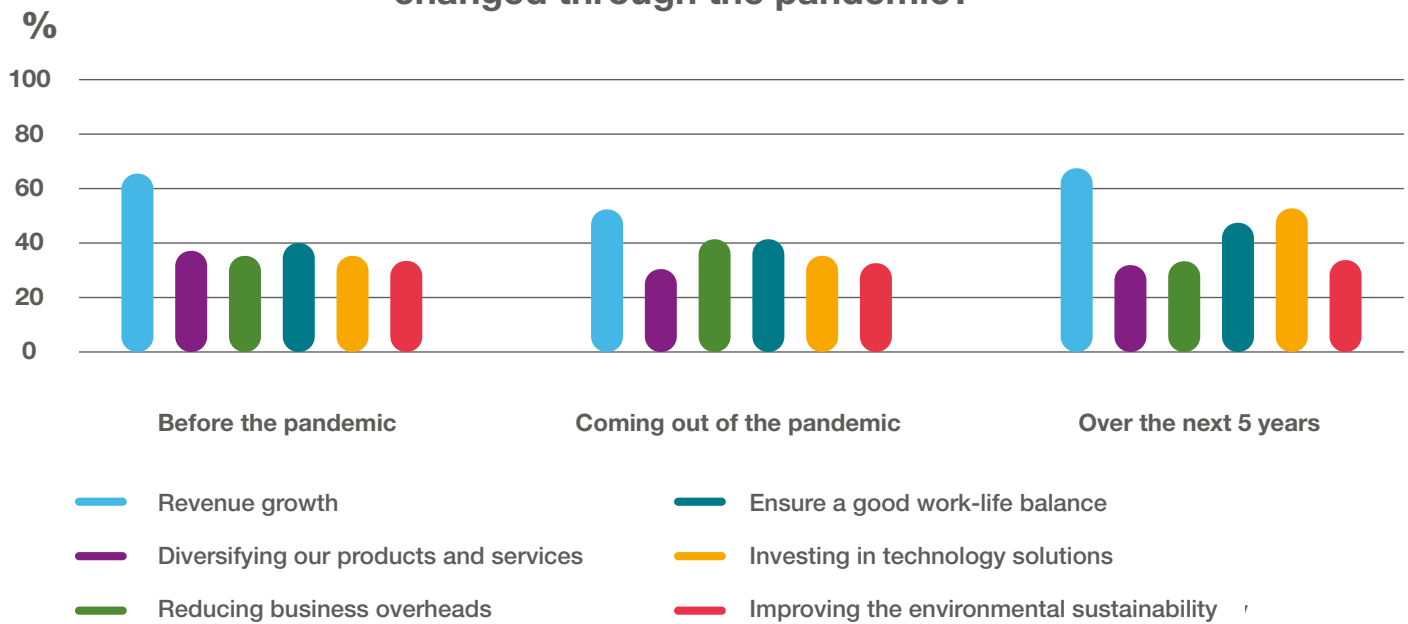


# Exploring retail technology trends across the continent

## Understanding changing priorities

To understand the context driving retailers' technology procurement decisions, we found that their priorities shifted as they rose to meet the new challenges presented by the pandemic.

## How have your strategic priorities changed through the pandemic?



# 47%

say investing in technology solutions  
is a priority over the next five years

We can see that, while revenue growth remained the top priority throughout the crisis, the pandemic prompted an increased focus on reducing overheads in the face of unforeseen pandemic-related expenses, such as PPE and plastic screens, which has now receded.

Tellingly, one of the priorities that continued to grow in importance throughout the period was ensuring a good work/life balance, reflecting how the crisis has created an enduring focus on colleagues' well-being, including physical and mental health.

It's also reassuring to see that organisations' environmental sustainability plans remained robust despite the challenges of the pandemic and are now a higher priority than they were before the crisis.



Tech spending plans soared during the pandemic. But strikingly, the largest shift was investing in technology solutions.

While just over a third (36%) of retailers said tech investment was a focus before the pandemic, it is now a priority for almost half (47%) of businesses for the next five years.

This may suggest that retailers' technology investments made during the pandemic were more reactive than strategic, but their focus on protecting their businesses has shifted to transforming them into resilient, sustainable enterprises that are fit for the long-term.

It's all too clear that those retailers that fail in both keeping pace with competitors' improved and streamlined processes, and managing the intricacies of the online-to-offline model, as well as delivering against ever-increasing customer experience expectations, stand to lose out significantly.



Company spotlight

## IT Director, Fashion Retailer, UK

---

“

*Leaders, the likes of Amazon, have changed shopping forever over the last seven to eight years, especially over the last year. Covid-19 drove this e-commerce boom, but Amazon was well set up for it for years vs. our organisation who had to ramp up in just this one year.*

”



# | What technologies did retailers invest in during the pandemic?

Which of the following technologies or initiatives has your organisation invested in because of the Covid-19 pandemic?

## Top five answers



Enhance online customer service points like live chat



More comprehensive returns policy



AI for automatic sorting and filing of scanned documents



Using apps and AR to enhance online shopping experience



Electronic receipts





Understandably, we can see that retailers' investments reflected the necessary shift towards e-commerce, including mobile, with the aim of optimising the online experience for shoppers who were no longer visiting physical stores.

Retailers moved to introduce solutions such as live chat to enhance their customer service, enabled online payments using e-receipts, and sought to improve their returns policy.

Notably, the improvements made to returns policies have gone far beyond simple extensions to these policies themselves - i.e. extended returns periods - and include seeking to make the customer-facing process significantly quicker, easier and, crucially, error free.

A perhaps previously undervalued element of this process is the need for clear, robust and accurate labelling at all stages of the delivery and returns process. Investment in best-fit labelling solutions, from rugged, hand-held devices to high-volume, industrial desktop printers, has helped to ensure that high customer expectations on time-scales are met, as well as mitigating the cost implications of undelivered or mis-delivered items.



Company spotlight

## Head of SAP Special Applications Food Retailer, Germany



*We developed software ourselves that enabled digitisation of the delivery notes that you need to deliver the product. So the products arrive at the factory and we have the information in the system already and just needed to pass it on digitally to the lorry driver... due to Covid it did make sense in order to minimise contact between people. Pre-Covid, 70% of the delivery notes were electronic and now we are on 90%.*





# Insight: The five key factors behind the demand for new labelling systems

The pandemic resulted in a surge of online demand for all types of products, even as global supply chains experienced massive disruptions. Businesses pivoted to online order fulfilment, increasing their reliance on industrial printers for applications like shipping and receiving, inventory and asset management, and picking and packing list requirements in the warehouse.



High-volume applications in manufacturing and distribution now rely extensively, and almost exclusively, on industrial printers with ruggedised metal bodies and long durability for their ability to create long-lasting and sturdy label.



But these investments are not restricted to rugged environments. The expansion of fulfilment options to meet customer expectations, from direct-store-delivery (DSD) to online pickup in store (BOPIS) options, means labelling applications are needed in more parts of the business.



Retailers are having to make concerted efforts to improve their traceability initiatives and maintain compliance with constantly changing customer, government, and industry regulatory mandates, like in life sciences and food and beverage.



Solutions have become more affordable and as such, more accessible as vendors expand their portfolios to include products at lower price points.



Behind the scenes, integrated warehouse management systems (WMS) are digitally converting a wide range of day-to-day documents, such as delivery notes, orders and invoices, meaning they can be scanned instantly to simplify the work of store personnel or managers, further speeding up fulfilment times - something that retailers are starting to explore, with two out of five retailers (42%) investing in the use of AI for automatic sorting and filing of scanned documents.

Paul Hamblin, Editor in Chief of Logistics Business Magazine, a pan-European publication, explained how integrated, digital systems can tackle the returns process - one of retail's mostly costly challenges: "Cumbersome practices can be automated using a Warehouse Management System with returns management functionality.

"Software of this kind eases the transition from manual to digital processes and improves tracking of returns inventory, potentially offering greater opportunity to extract extra revenue from repurposed or remanufactured goods."

Additionally, Augmented Reality (AR) investment to enhance the online experience, including deliveries, also featured within the top areas of investment. Fashion retailer ASOS applied AR by enabling online customers to digitally dress a virtual model in an outfit they were considering buying to see how items look together, support purchasing decisions and aiming to reduce returns.





# | Immediate post-pandemic plans

**Retailers' focus on digital customer experience will endure.  
What will retailers be focusing on short term?**

That reflects the view that many shoppers who have migrated online during the height of the pandemic and lockdown restrictions have now changed their shopping habits for good.

Looking across some of the key European economies (Germany, France, Netherlands, Italy, Spain and UK), online sales represented 12% of the total in 2019, rising to 16.2% in 2020 and falling back to 15.3% in 2021. While sales are settling slightly as pandemic restrictions ease, the figures still reflect strong growth in online purchasing.

Accordingly, retailers tell us they are planning to invest in a range of technologies designed to make the online shopping experience better for their customers. From advanced e-commerce solutions to enhanced, integrated logistics processes to support deliveries and returns, the opportunities for retailers to add value to their customers and stand out from the competition have increased significantly.

The warehouse can be viewed as the new hidden battleground on which retailers are competing with one another, with developments in picking technologies and warehouse automation capabilities providing those willing to invest with cost and efficiency benefits over competitors.

Complex workflows tied together by integrated systems and process, including information rich barcode labelling, robust and connected specialist label printers, and intelligent scanning solutions provide the foundation for additional value-adding technologies to deliver against customer expectations as well.

Which of the following technologies or initiatives do you think would be beneficial to invest in over the next three years?

## Top 5 answers



Apps and AR to enhance online shopping experience



Electronic receipts



Enhance online customer service (eg live chat)



Electronic labelling



AI for automatic sorting and filing of scanned documents





## Insight: Why is labelling so important for warehouse picking?

The speed of shipping is rapidly becoming a key factor in determining which retailers consumers buy from. More than two thirds (68%) of consumers say fast shipping would lead them to place an online order. And for 36% of consumers, 'fast shipping' now means same-day delivery.

With the increasing number of online orders and stock-keeping units (SKUs) under management, supply chain visibility and product traceability are critical for omnichannel success.

Every second counts in e-commerce fulfilment and such a fast-paced environment demands a label printing solution that can keep up and give pickers the ability to print on the go with speed and accuracy.

Two-, three- and four-inch, portable labelling devices that are lightweight, compact and extremely rugged are empowering retailers to deliver these expectations across their warehousing and logistics function.

In such a hard-wearing environment, firms should ensure they have models with the IP54 certification, which offers that extra piece of mind for applications where moisture and dust is an issue, and sufficient drop testing to ensure toughness and reliability.





For example, transport management apps help a customer view their parcel's progress to their front door - reducing 'Where is my order?' (WISMO) calls. Additionally, that interaction helps the retailers' process and costs too.

Paul Hamblin, Editor of Logistics Business Magazine and industry expert explained: "Alerting customers of delivery status and delays will improve first-time delivery rates and eliminate needless return trips. Meanwhile, if the customer makes clear they will not be available, the route optimisation software within the apps will re-route the driver, saving minutes and fuel miles. State-of-the-art routing and telematics software can reduce fuel consumption and CO<sub>2</sub> emissions dramatically when applied to a large fleet."

But for those retailers not yet ready to take the leap into automated packaging and labelling solutions, there are still measures that can be taken to reduce the environmental impact of this process - from fundamental changes in the packaging materials (recycled and recyclable) to more marginal gains such as using eco-conscious, power saving features on printers and ensuring delivery notes are automatically printed double-sided.



# Moving forward - retailers' investment objectives

## What are retailers going to be investing in long term?

The data shows that there are two major elements to retailers' investment strategies: achieving greater visibility of their own operations and improving their offering to consumers.

Given the uncertainty that has dominated the sector over the last two years, it comes as little surprise that retailers are seeking more visibility and control over their operations. Almost two thirds (62%) say demand is increasingly difficult to predict and seven in ten (70%) say disruptions to supply were more common because of the pandemic

What are the benefits your organisation can realise from investing in these technologies or initiatives?

## Top 5 answers



More accurate forecasting experience



More personalised customer experience



Better inventory tracking



Reduced environmental impact



Boost sales

Retailers want accurate real-time data on what's happening in their own business and supply chains so they can spot and react to potential problems early and avoid costly mistakes. And they are using technology to improve their forecasting (37%), inventory tracking (33%), sales reporting (31%) and monitoring of demand and supply (31%). Building resilience into systems and processes will be vital for retailers to ensure they can more accurately plan and execute their strategies, as well as having the confidence to make decisions on future investment.

We expect that customer-centricity will continue to be a key priority in the long term and customers will stand to benefit from continued investment in more personalised experiences (34%), more accurate customer information (31%), a more seamless omnichannel experience (30%) and a more customer-centric offering (29%).



Company spotlight

**Global Treasury Lead,  
FMCG Retailer, UK**

“

*Disruptions in supply and demand have been seen more often and inventory stock levels are becoming trickier to manage. Covid-19 has opened people's eyes that supply chains can become very fragile if you run them so light. We are no longer trying to source all supplies from just one supplier, instead we're trying to diversify.*

”



# Strategic directions to consider for long-term success

## Additional strategies that will help retailers navigate the aftermath of Covid 19

As retailers emerge from a period of implementing rapid reactionary measures to combat the immediate disruption they faced at the start of the pandemic, a more strategic footing and focus on driving future success is taking shape.

Twice as many retailers as before the pandemic (39% vs 21%) say they will now place more focus on long-term capital expenditure than daily operating expenses. This shift is reflected in how they are aligning their approach to technology with their new business priorities.

## Top five trends that will continue after the pandemic



A continued drive towards e-commerce



It will be harder to compete with larger retailers



Growing demand will put strain on logistics



Growing emphasis on cybercrime



Cashless payments will become normal

For the majority of organisations, the pandemic has increased the attack space for cybercrime - whether the threat of malicious activity comes from changes to working structures or just invigorated cybercriminals, the risks to retail are not being ignored with 69% turning their attention to combating cybercrime.

Legacy technology and systems can make for easy access to otherwise robustly secured networks, so retailers must ensure that all entry points and devices connected to networks including software, solutions and hardware, such as printers, are adequately protected. Further to this, deploying managed technology, as part of which vendors and solutions providers will audit, mitigate and monitor security threats, is another route for retailers to better safeguard their operations.



Company spotlight

**IT Director,  
Fashion Retailer, UK**

---

“

*Cybercrime is something that's top of the agenda in my environment at the moment, especially with ransomware and things like that. We are insured for it but it's always a grey area, whether there will be a payment made on anything that may be compromised. Covid-19 has accelerated digital crime, hacking, it's increased quite a bit, especially in the last year.*

”



## Step up your print security

More than one in ten of all security incidents that affect businesses involve a printer, 59 per cent of which result in data being lost.

But despite the risk, protecting printers and removing the vulnerabilities most commonly targeted by criminals doesn't need to be a complex or time-consuming task. Here are five things you should consider:



# Insight: Five key takeaways to step up your print security

1

## **Treat your printer like the rest of your network**

Think of printers in the same way as servers or workstations. Do all of the same things you would for your infrastructure, including carefully configuring them to change default settings and regularly installing update patches. Look for a printer vendor that is able to give you guidance on securing your printers and be sure to follow their advice.

2

## **Ensure robust user access control**

Think carefully about user access and put appropriate controls in place. More advanced functions should only be accessible to trusted individuals, and everything should be password-protected.

3

## **Regularly update firmware and hardware**

Keep your hardware up-to-date. There is an race between cybercriminals and software developers working to keep your data safe and neglecting to install driver and firmware updates can make you a target. If your printers are too old to accept updates, it's time to upgrade to a more secure option.

4

## **Build-in end-to-end encryption**

Ensure that data is encrypted right up to the moment the ink or toner touches the paper. This will avoid the risk of data being intercepted either while en-route from the network or while stored on the printer itself.

5

## **Always use genuine consumables**

Be sure to use genuine Brother consumables, such as belt and drum units that have a cleaning feature, so imprints are not left. Non genuine consumables can accumulate impressions of previous print jobs and reprint them onto new documents.



# Logistics and home delivery

## Getting the final stages of a customers experience right

Retailers are moving to address the growing demands on their logistics function, with three in five (62%) saying increased consumer demand is straining their current logistics infrastructure.

Almost the same proportion (64%) say they are held back by lots of manual or slow processes which could be automated, but are instead proving a barrier to achieving their business priorities.

To improve the e-commerce experience, retailers introduced increased tracking services (62%), real-time updates on couriers and deliveries (56%) and click and collect services (56%) as consumers are starting to see these as the new basic requirements.



As a result, home deliveries are being increasingly digitised, with three quarters (73%) reporting that digitised workflows are more efficient than paper-based systems. They are introducing initiatives like electronic receipts (87%), scanning of physical documents (85%), more comprehensive returns policies (80%), using AI for sorting and filing scanned documents (73%) and character recognition software (68%).



Company spotlight

### **Executive Director, Food Retailer, Germany**

---



*Consumers are much more demanding – that means they want live tracking, which we offer, and we also offer express delivery option. That is quite a bit more expensive but nonetheless it is often used which tells us that the B2C customer is looking for faster delivery. The number of express deliveries increased in 2020 by around 40%.*





Commenting on the research, Paul Hamblin, industry expert and editor said: “Inventory management software, which optimises the auditing and storage of goods in a retailer’s warehouse or distribution centre is making big gains for users.

“And automated picking, including the increasing use of robot technology, is a key component of the technology suite in e-commerce and ‘bricks and mortar’ retailer distribution centres.

“Retailers are adopting the technology to increase both speed and accuracy of goods picking, and to enable 24/7 operations, especially at peak times such as Christmas or Black Friday.”

At the heart of these processes is accurate, efficient and data rich identification capability. Barcode labels, for instance, are able to provide retailers with all the necessary data to support effectively locating, identifying and dispatching items.





# Insight: Three considerations for picking the right labels

Labelling errors can cost anything up to €1,000 per pallet in fines, potentially wiping out a significant part of the profit for logistics companies tasked with securely handling goods. It is therefore vital that labels are up to standard and there are three important considerations to make:

## Surface adhesion

Whether the surface that the label will be fixed to is smooth or curved is an important factor in deciding which type of label adhesive and material will be the most beneficial for your applications.



## Temperature

Significant changes in temperature have the potential to wear labels quickly. If an item will spend a significant amount of time outdoors or in transport, it will require a label that is resistant to extreme heat and cold.



## Durability

Many packages can be exposed to moisture and chemicals as they move through the supply chain to the final mile, which means it's often vital to have highly durable labels that are resistant.





Many retail companies are already experiencing significant benefits from using inventory management software. “Accuracy is 100% today, compared to 85% before implementation. It has reduced errors by 90%, improved pick-up times by 95% and improved space allocation by 95%,” enthused Kashif Rasheed, WMS project manager at major retail group Union Coop.

More sophisticated, integrated labelling systems with a range of desk and mobile printers will also play a central role in not only ensuring better accuracy, but finding valuable, new efficiencies in warehousing processes.

Speaking to the trade, Gary Carlile, of delivery management software specialist, nShift:

***“The processing of actual orders, via a retailer’s own warehouse, or via a third party logistics (3PL) service, producing the right label at the right time to integrate with various individual carrier systems, brings huge efficiency gains.***

***“We target 500 milliseconds per transaction print, so by the time the WMS is requesting and submitting a request to our platform, we are returning it.”***





# Making sure customers are happy, wherever they shop

## Improving the online and in store experience

Real life and virtual shopping experiences are becoming increasingly intertwined. A customer may see a product on social media, check its availability on a store's website, then visit a branch to try it on, before ultimately purchasing online, and the experience must be consistent personalised and seamless.

This relies on unifying customer data from all channels and locations to target customers with the most relevant marketing, connecting them with your products, delivering outstanding customer service and making secure payments.

Amazon has long been held as the gold standard for exceptional, integrated online customer service – setting the pace for the rest of the retail market.

For most other retailers, it's been a case of playing catch-up with the e-commerce giant. But now, with the added push of the pandemic fallout, retailers are investing in e-commerce solutions with a holistic view to improving digital processes to both positively impact back-office operations and deliver on the customer experience.

And while the race for competitive advantage will see retailers continuing to invest in new and evolving technologies – the research finding that firms are readying themselves by ramping up their technology spending plans for the post-pandemic period - it's worth noting that there is no shortcut to success nor one single solution that will make retailers more efficient, cost effective or secure.

While just over a third of retailers (36%) said investing in technology solutions was a priority before the coronavirus crisis, three quarters (75%) say the pandemic has accelerated their adoption. We may now be beginning to see the start of (or return to) a more strategic approach to retail technology investment. As such, the need for a seamless information flow between vital hardware, such as label printers, and integrated warehouse systems should remain a fundamental focus on which to build effective processes.

## Insight: Reducing in-store queues for customers

The point of sale can now be anywhere within a retail environment, with cashless payment taken wherever the customer happens to be in-store.

But, whether it's mobile payment terminals that reduce check-out queues, digital ordering and payment points that streamline transactions or simply the hygiene benefits of not handling cash, the growing expectation that technology makes things simpler, easier and faster is transforming the customer experience for all of us.

Flexible, contactless payment systems are at the heart of that change. And, increasingly, those businesses prepared to embrace the cashless revolution will be the ones most likely to succeed in retail's 'new normal'.

To complement this, retailers are increasingly using handheld labelling solutions in-store to ensure every product has a label, which reduces waiting times for consumers, and to be able to print and scan receipts on the go.



# Conclusion: Digital transformation must be constant

The pandemic exposed and exacerbated existing weaknesses in retailers' operations. It prompted an unprecedented boom in e-commerce growth and, while some retailers were well prepared, others were left playing catchup. Some even fell by the wayside.





In response, retailers had to move quickly to launch new online channels and, with our support, digitise their workflows.

At first, this was a survival strategy. Which many succeeded in.

Now, many have the systems in place that will realise resource savings, deliver efficiencies, and improve customer experience going forward.

But there is always more to do.

In a sector where margins are always under pressure, incremental improvements can make all the difference.

It's up to retailers to keep interrogating their operations to identify opportunities for enhancement- and we're committed to being "At your side" to help.

As the sector continues to adapt and evolve, those who embrace the challenge and enlist the right technology support and expertise stand to navigate the near future best.



Company spotlight

### **Global Treasury Lead, FMCG Retailer, UK**

---

“

*We were surprised that we could be so resilient. We usually write Business Continuity Plans (BCPs) to overcome challenges and we have modelled a few scenarios, but no one wrote a BCP for this and a year and a half later we are reasonably OK.*

”

# brother

at your side

Contact:

**[www.brother.eu](http://www.brother.eu)**

**Brother International Europe Ltd**

Brother House, 1 Tame Street, Audenshaw,  
Manchester M34 5JE

Tel: +44(0)161 330 6531

Fax: +44(0)161 330 5520

All specifications correct at the time of printing and are subject to change. Brother is a registered trademark of Brother Industries Ltd.  
Brand product names are registered trademarks or trademarks of their respective companies.