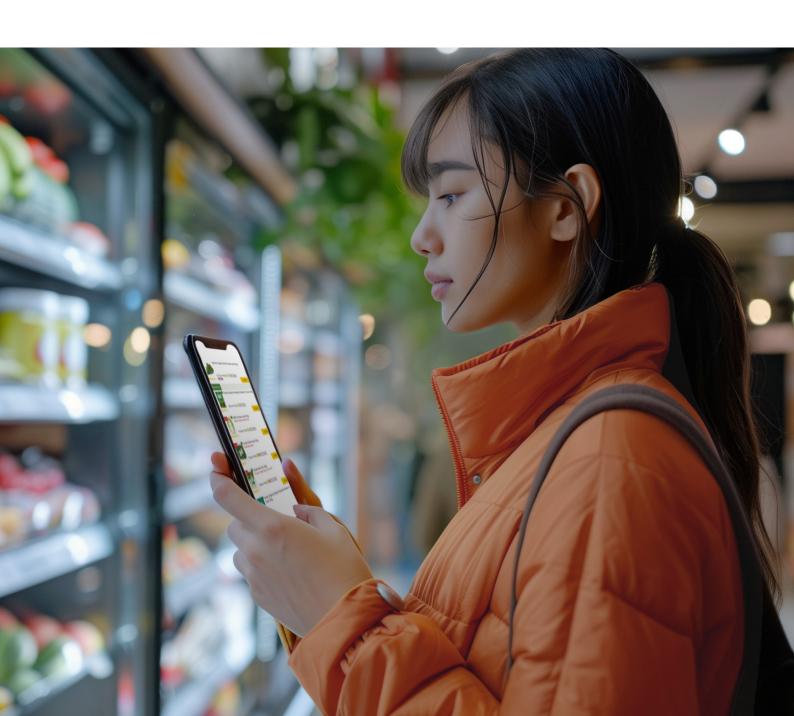


A new era of transparency

How UK retail will meet the demands of the informed customer



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A transformative future for retail

At GS1 UK, our purpose is to harness the power of standards to transform the way people work and live.

Our globally recognised standards are essential for capturing and sharing interoperable data. For more than 50 years, we have used this infrastructure to help industry adapt, thrive, adopt ambitious new commitments and make demonstrable improvements.

As we collaborate with our community of 60,000 members, helping them find solutions to the challenges they cannot solve alone, we have become increasingly aware of the major transformation currently underway in retail.

This transformation is not only being driven by technical innovation and the rise of e-commerce, but also by shifting demands, behaviours and expectations.

From consumers and regulators to brand owners and retailers, everyone wants to know more about the products they buy, sell or consume. However, space onpack is finite, meaning there will always be a limit to the amount of information physical labels can carry.

We firmly believe that QR technology, specifically QR codes powered by GS1, will be a critical solution to this challenge. By allowing businesses to connect their products' unique identity to multiple online sources of real-time information, these next generation barcodes have the potential to shape the future of industry. They will transform consumer engagement, enhance ESG reporting at both a product and a company level, improve traceability and transparency up and down the supply chain, and much more.

Just as we are about to embark on the next chapter of our collaboration with industry – the global transition from linear, one-dimensional barcodes to QR codes powered by GS1 – we wanted to ensure we had a complete understanding of the challenges QR technology can address and where these challenges sit among the retail industry's current and future priorities.

That is why we have partnered with FT Longitude. The research we have conducted is grounded not out of curiosity but out of a genuine desire to be a catalyst for positive change.

Our research has found that while the modern consumer has a thirst for knowledge, this need isn't currently being met. **96 per cent** of those we spoke to agree that major change is on the horizon and that trusted data that informs and protects consumers will be at the heart of this transformation.

These insights will inform our continued collaboration with industry, allowing us to ensure that businesses are well-equipped to meet new challenges and that consumers remain informed and protected with data they can trust.



Anne Godfrey CEO GS1 UK

Executive summary

The foundations of customer relationships are shifting in the UK. The informed, knowledge-hungry customer will be the norm in the near future. By 2030, the feature of the in store experience most in demand from customers will be access to detailed product information.

A company's ability to meet this need will rely on trustworthy data obtained from across the supply chain and shared with customers using a range of technologies.

Product transparency – its ingredients, its origins, its carbon footprint – will become critical when earning customers' trust and cementing their loyalty.

UK consumers have much to gain from this evolution. They will be more empowered, more informed and better protected. Using their smartphone to scan a QR code, shoppers will have easy access to vital data about the sources of product ingredients and materials, so much more than they can currently find on pack. Climate-conscious consumers will be able to

learn where and how the product was made and the emissions generated in their manufacture and transport. Ethical shoppers will be able to read about which labour standards the product meets. Curious consumers will be inspired by the brand story and how to get the most out of the product, and cautious consumers will be protected with quick unambiguous access to allergen data, for example.

What do these changes mean for the wider retail industry and how quickly will they come about? To find out, GS1 UK canvassed the views of more than 500 UK-based leaders of retail businesses. (For details about the survey, see "About the research" at the end of the report.)

"We're witnessing the rise of a retail evolution – one where only the strongest and most adaptable brands will thrive. The relentless consumer appetite for transparency and experience is going to severely impact those who can't keep up."

Kate Hardcastle MBE Consumer expert and retail strategist

What retailers and brands told us



Customer experience will gain a new dimension

Best-in-class customer experience (CX), both in store and online, will come to be based on customers' access to the types of detailed product information described above. In 2030, easy access to such information will do more to shape CX than loyalty rewards.



Full product transparency will build deeper trust

Better access to product information will do more to build customer trust in the future than any other technology capability. To create this access, businesses must develop processes and mechanics that will allow them to share more information on the product journey with consumers.



QR will fast become ubiquitous in UK retail

By 2026 the QR code will be the norm in UK retail environments, say **71 per cent** of respondents. All believe this will be the case by 2030, and **41 per cent** expect it to have supplanted the barcode by that time as the product identifier. Nearly half (**46 per cent**) of the surveyed companies have begun to build QR capabilities, and **52 per cent** say they'll start doing so within the next two years.



Retail technology must deliver on sustainability

Without additional technology investment, retail businesses will be unable to meet their sustainability commitments, according to **40 per cent** of respondents. Over two-thirds (**37 per cent**) strongly agree (and **53 per cent** 'somewhat' agree) that QR will be essential to meeting future sustainability commitments. At the very least, more accurately measuring progress toward their targets should help companies to meet them.



Retail digitisation will take another leap forward

Retailers and brands will use a range of technologies to give customers the experience they want. Over **70 per cent** say that a variety of technologies will be part of their future growth strategy. These include the Internet of Things (IoT), blockchain, predictive analytics, automation, artificial intelligence (AI), and augmented and virtual reality (AR/VR). Almost as many (**69 per cent**) say the same about the potential that QR capabilities can unlock.

Below, we examine in more detail the anticipated changes to come in retail and their implications for technology investment, transparency, trust and customer loyalty.



1. The information imperative

Accurately predicting shifts in customer demand is vital for retailers and brands. Our surveyed executives are clear about what customers will want from the in store experience (offline or online) in five years' time: easy access to detailed product information.

Even today, the largest share of these executives (**32 per cent**) say that greater detail about products' carbon footprints is high on customers' in store priority list. They expect that to remain a top priority five years from now, along with two other types of information:





Provenance

Customers increasingly want to know where a product's ingredients and materials come from, for health, environmental and ethical reasons. They worry, for example, about allergens in food and household products, and about the emissions generated in their manufacture. Many are wary of buying products with association to countries known for dubious labour practices.

Usage

Customers want more detailed information about how products should and could be used. This might involve recipes, assembly instructions, compatibility with certain accessories, or guidance on re-use and recycling.

"Consumers are done with being kept in the dark. They don't just want transparency – they demand it, and they're fed up with brands that can't or won't deliver. This is no longer a matter of preference; for some consumers it's a non-negotiable."

Kate Hardcastle MBE

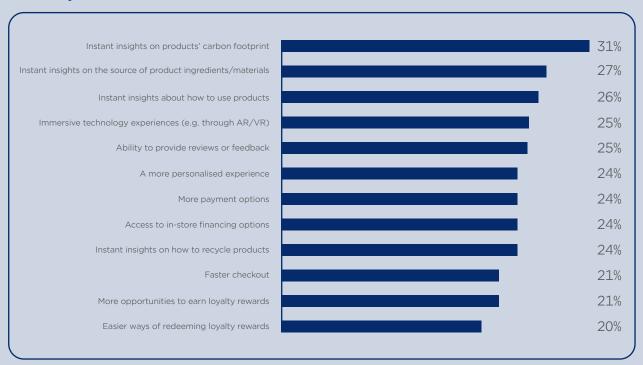
Current and future priorities for the in store experience

What do your customers want most from the in store experience (in physical stores or online) today, and what do you think they will want in five years' time?

Today:



In five years' time:



So, our retail executives believe that transparency will be paramount for shoppers. They expect the latter to value it more than flexible payment options, fast checkout and opportunities to win loyalty rewards. Many even believe that customers will want product transparency more than personalisation.

"We know our customers want the opportunity to access detailed product information instantly via their smartphones," says Matthew Rhind, supply chain development and change director at Tesco. "We're looking at ways of expanding that, and also at solutions for reducing waste and tracking products more effectively throughout our supply chain."

Transformation under way

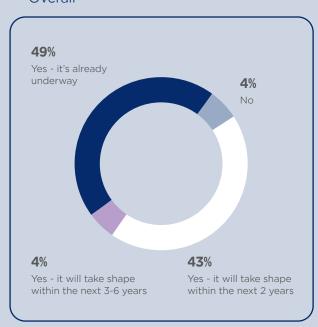
It is the strongly held view of **43 per cent** of retail executives that their industry is changing more rapidly today than they have ever witnessed in their careers.

Growing demands for product information are indeed part of a retail transformation that our UK retail executives see taking shape. Half of them say that transformation – defined as the complete digitisation of operational systems and processes – is already under way, and 43 per cent expect it to happen in the next two years. It is a view that is shared by every part of the UK retail sector, from the high street to producers of consumer goods.

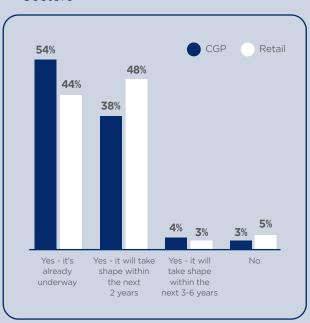
Expectations of retail transformation

Do you expect a retail transformation between now and 2030?

Overall



Sectors



CGP = consumer goods production, including contract production and design of consumer goods Retail = includes brick and mortar only, online only and omni-channel

"It isn't a case of wanting information in the future. Customers want it now. And as soon as they realise what the information opportunity is, they will crave it more and more. They will develop an almost insatiable appetite for information."

Kate Hardcastle MBE

Retail transformation involves changes to how people shop, how they pay for their purchases, how the supply chain functions and how brands market to consumers. In the UK, these types of change have been in evidence for a half-decade or longer. The Covid-19 pandemic accelerated these changes by forcing companies to step up their digitisation, which now includes widescale adoption of AI.

Customers are changing too. Digitisation has given them unprecedented access to brand and product information, which has increased their knowledge and, with that, their power. Our surveyed executives know that they will need to adapt to this power shift. Over one-third (**34 per cent**) believe how customers access product information will one of the foremost areas of retail change between now and 2030.

"Consumers may think they're informed today, but they've only scratched the surface," says Kate Hardcastle MBE. "The tidal wave of knowledge that's coming will fuel the biggest transformation retail has ever seen. If brands don't ride this wave, they'll be left behind."

Areas where retail will see the greatest degree of change

Which of these elements of the retail business do you believe will change the most by 2030?



All eyes on the in store experience

The other major change expected by the surveyed executives is an accelerated shift to online. Consumer goods producers (CGPs) and retailers agree on this point.

For omni-channel retailers, this acceleration makes convergence between online and offline CX even more important. "For the online customer, that involves recreating some elements of the in store experience," says Sagar Mehendale, solutions architect at supermarket chain Morrisons. "For example, we have a vision where using 3D modelling of products will enhance customer experience as it does in high-end

electronics and fashion retailing. This can be further enhanced with virtual or augmented reality."

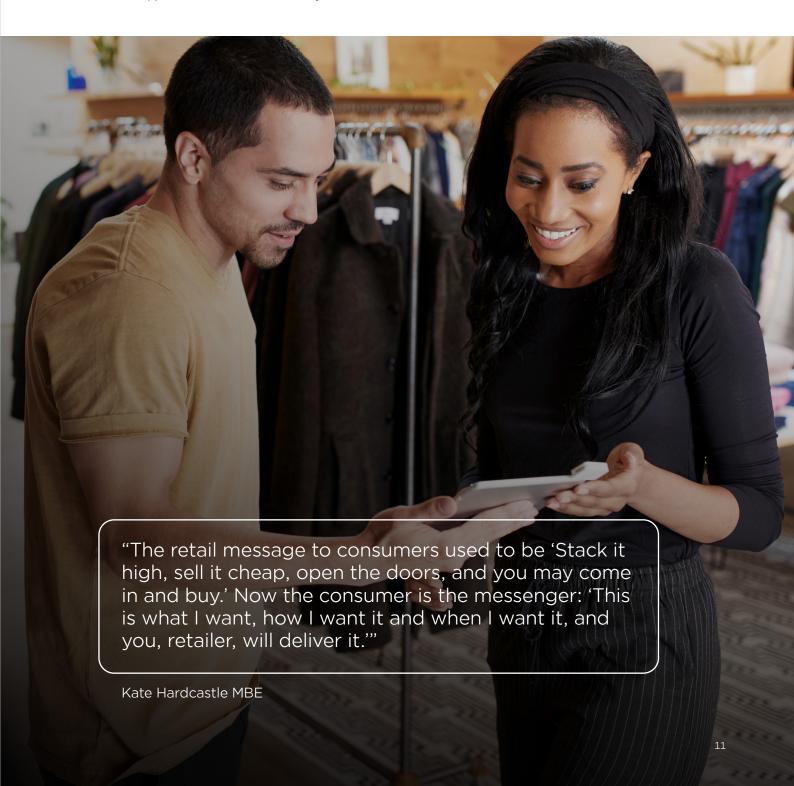
Offline, one aspect of convergence will be improving store navigation, says Mehendale: "Online customers can easily search for products. But in a large Morrisons store, which may have between 15,000 and 20,000 SKUs [stock keeping units], that's not easy. Providing some form of digital in store navigation, which might include product recommendations, can improve customer engagement."

About a third of the executives in our survey agree that immersive experiences using metaverse technologies such as AR/VR will be commonplace in future retail

environments: **32 per cent** (and **42 per cent** of bricksand-mortar retailers) expect the use of immersive experiences to be a major area of retail change between now and 2030.

Checkout will be another area of change, according to around one-quarter of respondents. Checkout has already changed considerably in recent years, with retailers augmenting (and even replacing) traditional tills with self-scan and mobile pay-and-go technologies. In a separate question, **51 per cent** expect the traditional checkout to have disappeared from stores within five years.

Gareth Hughes, executive director of retail technology at The Estée Lauder Companies, a provider of beauty products, says its stores will implement mobile point-of-sale systems. This will involve staff roaming the store with mobile devices that help them provide customers with information and assist them with checkout. According to Bryan Lewis, a senior technology executive in the toys and games industry: "It's important that our customers and staff have those conversations. They are a vital part of the in store experience."





2. Technology holds all the cards

In our interviews with UK retail executives, we asked about their companies' technology priorities in the years ahead. Much of what they told us relates to customer loyalty and improving CX through better data collection, management and analysis. That includes gathering and leveraging first party consumer data.

Seasalt, a producer and retailer of outdoor apparel, is prioritising AI capabilities to improve demand forecasting, prediction of customer preferences and inventory management. "We'll also be looking to make greater use of generative AI to produce interesting stories around our products that we can use across our marketing channels," says Adrian Mosley, the company's chief digital officer.

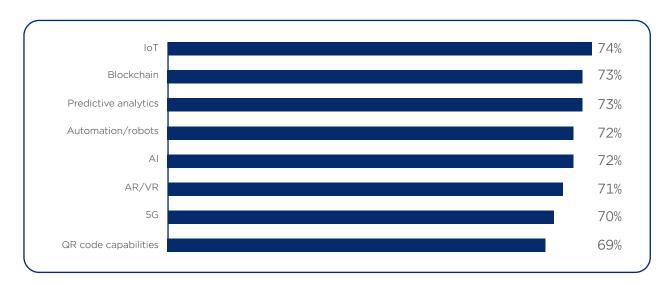
Bryan Lewis says that a priority is "replacing legacy technology and moving more to the cloud, principally to upgrade data analytics capabilities".

As we saw in section 1, metaverse technologies such as AR/VR are expected to be crucial to the in store experience. "Metaverse is a big area of investment for us," says Lynda Theard, executive director e-commerce Europe, at fashion retailer Claire's.

The results of our survey support this. For example, more than **70 per cent** of the executives say that IoT, blockchain, predictive analytics, automation, AI and AR/VR are either 'critical' or 'very important' to their companies' future growth.

Technologies integral to the retail future

How important are these technologies to your company's ability to meet its growth plans over the next five years? (Executives who answered 'critical' or 'very important')



QR steps up

Over two-thirds of executives (**69 per cent**) also see QR as integral to their growth plans. CGPs are slightly more likely than retailers to view QR in this light (**72 per cent** versus **66 per cent**).

All but one of the executives we interviewed say their companies have integrated QR into their technology strategies. All of them are using QR codes today as a way to give customers quick access to discounts and other loyalty rewards.

Estée Lauder is one company that is expanding its QR focus, by using it as part of a 'virtual try-on' capability

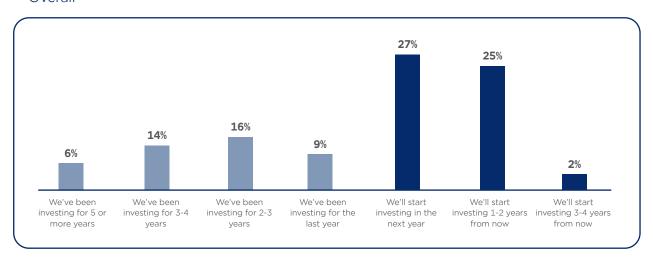
in its stores. When customers use their smartphone cameras and scan a QR code, an app analyses their skin tone and offers make-up recommendations. "QR will be complementary rather than transformative," says Gareth Hughes. "But it will certainly add value."

In the survey, **46 per cent** of the executives say their companies have started investing in QR capabilities. Most of the rest (**52 per cent**) say they will start doing this within the next two years. Interestingly, retailers – particularly omni-channel ones – are more likely than CGPs to have started investing in QR (**53 per cent** versus **39 per cent**).

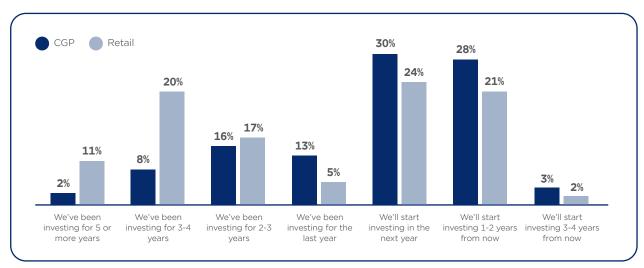
QR investment intentions

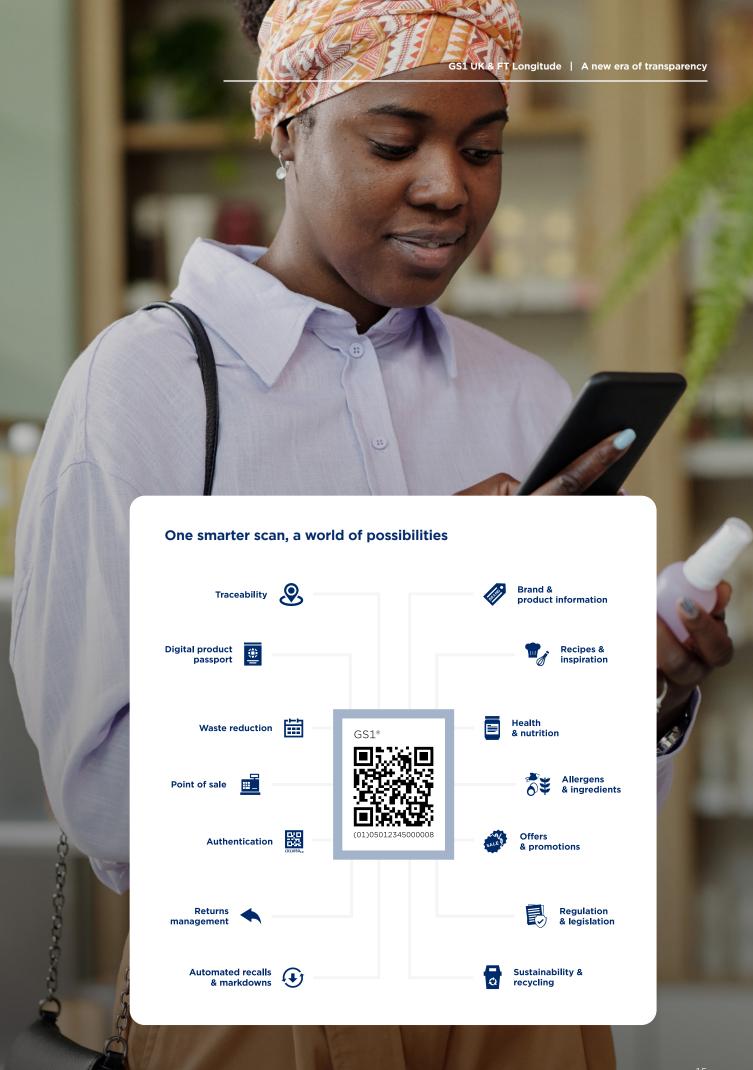
When did your company begin, or when will it begin, investing in the development of QR capabilities?

Overall



Sectors



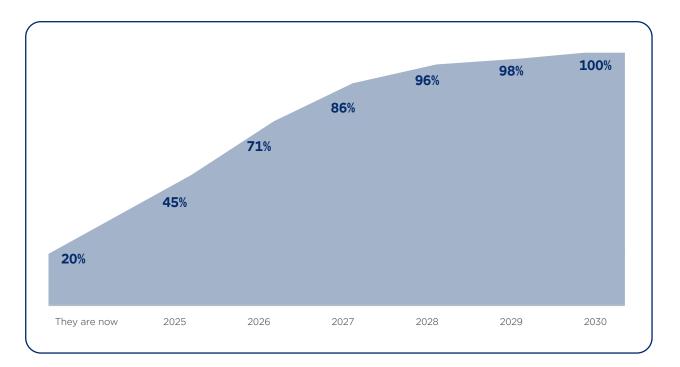


For many companies, one reason to invest is the expectation that QR codes will gradually replace the barcode as the universal product identifier. "We see QR bringing many more benefits than traditional barcodes, including in access to insights about products," says Mehendale at Morrisons. "That's the journey the retail industry is taking."

In our survey, **41 per cent** of executives are certain that the QR code will replace the barcode within the next five years, and another **48 per cent** think it is possible. Most believe that QR use will be the norm in UK retail environments by 2026, and they all think that this will be the case by 2030.

Expectations of QR adoption in retail

By which year will QR codes be the norm in UK retail environments (in physical stores and online) overall?



"The QR code is becoming a viable and valuable replacement for the barcode in retail. It identifies your product at SKU level and augments information about the product."

Sagar Mehendale, Morrisons

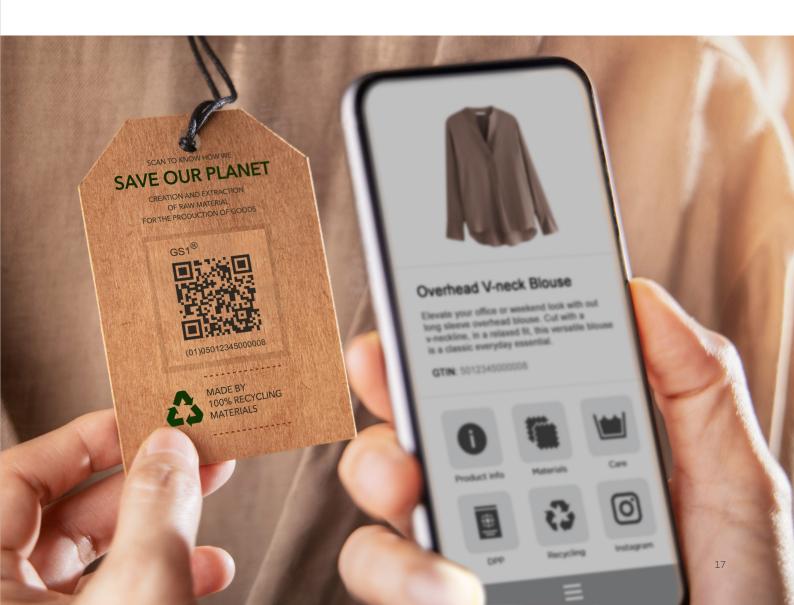
This bullishness about QR aligns with the expectations that customers will demand ever more detailed product information. "QR definitely has the potential to transform the customer experience," says Mehendale. "It gives us the ability to push dynamic information to [customers] in a succinct way." For the respondents,

QR's most useful feature here is the way it can communicate a brand story about product provenance.

For Lynda Theard at Claire's, QR has another benefit. "It puts the customer in control," she says. "They'll only receive a message or specific information if they want it."

"QR codes will help us meet the challenges of delivering detailed product information to customers while also improving the effectiveness of our supply chain. We are already taking steps to prepare for the transition."

Matthew Rhind, supply chain & development director, Tesco





3. Delivering transparency

Using the capabilities described above, retailers and brands will have the opportunity to cement the loyalty of their informed customers. The latter, for their part, using little more than a smartphone, can reassure themselves that the products they're purchasing are safe, are ethically produced and leave a minimal environmental footprint.

Sustainability and product safety loom large in demands for transparency, and not just from customers. Access to detailed information about emissions and other sustainability indicators will also be high on regulators' priority lists.

The executives in our survey expect supply chain transparency, ESG disclosure and product safety to be

major regulatory concerns for their businesses over the next three to five years. "At the moment, we don't have to report on things like emissions in our supply chain, but that's likely to change," says Bryan Lewis. "We'll then need to have the data and technology in the back end to meet those requirements."

Regulatory angst ahead

Which of these areas of regulation will cause your company the greatest concern over the next three to five years? (Top responses)



Retail companies' use of technology should help here. It can both reduce their environmental impact and help them to meet future reporting (and labelling) requirements. And by providing more detailed information about carbon footprints, retailers and brands will help customers to meet their own sustainability goals.

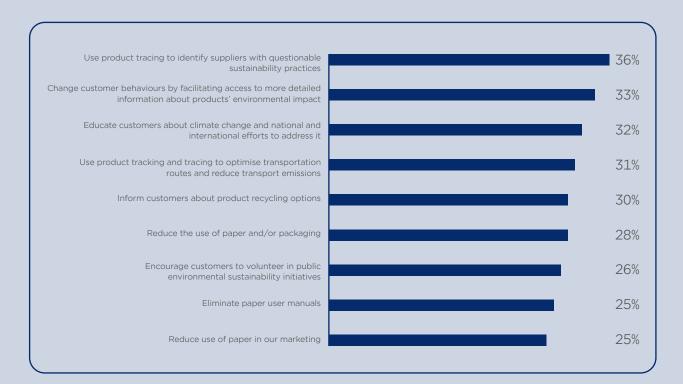
In the survey, **40 per cent** of executives say that their companies will be unable to meet their sustainability targets without significant additional spending on retail technology. This includes spending on QR: **37 per cent** agree strongly (and **53 per cent** somewhat) that QR

codes will be essential in the future for meeting companies' sustainability and climate commitments. One key contribution will be in enabling companies to accurately measure progress in hitting their targets, which should help in meeting them.

QR's environmental impact will be felt through, for example, product tracking and tracing. The respondents also see QR as a tool to help change customers' own sustainability behaviours by giving them access to information such as recycling options. Many also see QR's utility in reducing wastage of paper, packaging and other materials.

QR for sustainability

In what ways does your company envision using QR to help the environment? (Top responses)



"QR is not just a tool – it's the gateway to the kind of transparency that will redefine trust in retail. But it's up to brands to make it so seamless and so essential, that consumers value and engage with it to full advantage."

Kate Hardcastle MBE

Supply chain challenges and opportunities

The data that retail businesses will use to meet future product information demands – particularly around environmental impact and ethical sourcing – is largely going to come from their supply chains.

But not all businesses currently have this data at their disposal. "We have partial data about some products, and we can surface that to the customer now," says Mehendale. "But ultimately, we aim to get an end-to-end view of the product journey."

From supply chain to point of discovery

For Morrisons, building an end-to-end view of the product journey means getting more data from the supply chain. When it comes to information about provenance and carbon footprint, the company currently lacks complete product journey data for many of the goods it sells. "We intend to build a much more enhanced dataset," says Sagar Mehendale.

This is largely a challenge of better supply chain integration. "If I want to map the end-to-end journey for a certain type of wine from Napa Valley, California, I need better integration with my buyer and data exchange," Mehendale explains. "I need to obtain more information from them about how the wine is produced and transported. I need to know the emissions the wine generates at every step of the way. When it reaches the UK, how and where is it stored?"

Once Morrisons has that product information, it has to deliver it to customers at the point of

discovery. It plans to do that mainly through its customer-facing apps, such as its loyalty app and Scan and Go. "This is already where the customer views all the offers we have going on different products," says Mehendale. "We can use the app to surface more details about specific products. If the customer wants to find out, they'll scan the QR code [on the shelf or packaging], which will resurface all the information we've gathered about the product journey."

At that point, the product information must be presented in detail – but succinctly. "We cannot force all the information on the customer," says Mehendale. "They need to be able to see as much of it as they want."

The data integration efforts within the supply chain are a work in progress, but Mehendale expects the company to be able to provide this type of information to customers, on demand, within the next year.



In addition to delivering product information to customers, QR will help retail businesses to improve their supply chain management. CGPs see this area benefiting more from QR use than any other part of the business over the next five years. Many retailers also expect a significant supply chain impact, but they are slightly more likely to cite revenue generation and CX benefits.

Asked to specify the chief gains in supply chain management they expect from QR, the surveyed executives cite more efficient inventory management and greater accuracy of product data. Also figuring prominently are improved traceability, improved quality control and better visibility into supplier ESG performance.

How QR will benefit the supply chain

What are the most important supply chain benefits that you expect retail businesses will gain from the use of QR codes? (Top responses)



L 25%

More efficient inventory management



25%

Greater accuracy of product data



2 23%

Improved product traceability



✓ 23%

Improved quality control



¥ 23%

Better visibility into supplier ESG performance



a 22%

More assured security of product shipments



4. (Re)building trust with data

A big injection of transparency cannot come soon enough for UK consumers and the retail businesses that serve them.

People's trust in institutions overall – in business, government, media and NGOs – is at its lowest since 2018, according to the 2024 Edelman Trust Barometer. Just **48 per cent** of the UK population expressed some level of trust in businesses – the second lowest level among the 28 countries included in the barometer.

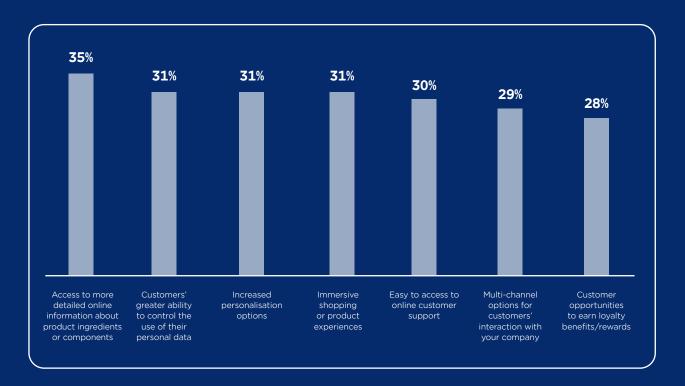
Retail is not immune to the trust crisis. <u>Research</u> conducted in 2022 found that while most UK consumers trust that the food sold in the country is safe, the level of trust had declined considerably since the previous year's survey. Inaccurate or absent information on the back of food packaging can be a matter of life and death. <u>GS1 UK research conducted earlier in 2024</u> found that **56 per cent** of people have had an allergic reaction from mislabelled or unclear food packaging, and **23 per cent** have suffered multiple reactions.

Providing detailed product information can help reverse this decline in trust. A recent survey conducted by GS1 in the United States showed that 77 per cent of consumers seek detailed product information. The UK executives in our survey also believe this to be case. When we asked them to identify the technology capabilities that will do most to build customer trust over the next five years, their most frequent response was immediate access to more detailed information about product ingredients or components.

More of them think this will build customer trust than control over their personal data, personalisation or access to loyalty rewards. And this is a view shared by retailers and CGPs alike.

Future technology contributors to customer trust

Which of these technology capabilities will do most to build trust from customers in five years? (Top responses)



When customers lose trust in product data because it is insufficient or inaccurate, they often also lose trust in the brands that provide it. Take sustainability-related data. Other recent research by GS1 UK shows that most UK consumers (57 per cent) believe companies engage in 'greenwashing' – hiding or misrepresenting key details about their environmental impact.

So retailers and brands must do more than just give the customer information about their products. They must also make sure that the data behind that information is accurate, up-to-date and consistent across as many products as possible. The standards that are needed for this have not yet been widely adopted in UK retail. A transition to QR gives the sector the opportunity to embed them.

5. A new loyalty battleground

Declining trust is unquestionably a factor in weaker customer loyalty. Nearly half of the retail executives in our survey (**48 per cent**) say unequivocally that people today have significantly less loyalty to brands than they did a decade ago.

Companies have a way to stop the decline. The new front in that battle for loyalty is detailed product information – the product's impact on the environment, how it is produced and where its key inputs come from.

Retailers and brands understand that loyalty needs to become less transactional. Our survey shows that the discounts and other rewards they have traditionally offered through loyalty programmes are declining in importance. Product pricing, quality and support remain integral to loyalty, but trust – in product information as well as a company's data collection and management – is starting to rival them in importance. Trust in this context is emotional rather than transactional, stirred by transparency about things that people care deeply about, such as their safety, ethics and the climate.

But loyalty programmes are not going away. In fact, QR can transform them by providing opportunities for new forms of engagement with customers. And many companies will use their loyalty apps to surface QR-generated product information to customers. Seen in this context, QR – used in tandem with other technologies such as AI and IoT and based on trusted data – offers loyalty-building efforts a new lease on life.

Retailers and brands have to be ready to meet the demands of this new era of transparency. The technology and data capabilities they need are there to support them. It is up to leaders to make it happen.

"This new wave of transparency will shatter the old loyalty models. What we're looking at is a loyalty rooted in deep respect - where customers and brands forge alliances built on openness, authenticity and trust."

Kate Hardcastle MBE

Are you ready for the new era of transparency?

Our study suggests five ways for retailers and brands to increase product transparency:



Improve data visibility

Data insufficiency means many retail businesses are unable to trace the end-to-end product journey. Closer data integration with suppliers would enable an automated flow of data across the supply chain and into the shop.



Ensure data trustworthiness

Companies can only meet customer demands for product transparency with reliable information. Rich product journey data will help to build trust, but it must be consistent and verifiable. That demands robust data assurance practices.



Widen the QR horizons

QR codes are commonly used today to direct customers to discount offers and other loyalty rewards. But their properties, such as scannability by smartphones and capacity to hold large volumes of data, mean they are a perfect way to bring detailed product information to customers at point of discovery and sale.



Keep it succinct but compelling

Even the most information-hungry customers do not want to read volumes of product details in store. The content presented must convey the essentials without overwhelming the customer. Done well, the information can also tell a compelling story about the brand and product.



Maintain the digitisation momentum

True transparency requires technologies to work in harmony, but legacy infrastructure remains an obstacle at too many retail businesses. Technology and data teams must keep up the painstaking work to replace it so that QR, AI, AR/VR and other tools can work together to fulfill their potential.

About the research

This report is based on a survey of 507 senior retail industry executives in the UK, as well as a series of one-on-one interviews with retail executives. GS1 UK undertook the study in partnership with FT Longitude, and the survey was carried out by Opinium.

The survey was conducted online in June 2024. Of the executives who took part, **48 per cent** work at retailers and **52 per cent** at consumer goods producers (CGPs).



Retailers

- 67 per cent are omni-channel
- 21 per cent sell in physical stores only
- 12 per cent operate exclusively online



CGPs

- 59 per cent manufacture and sell under their own brands
- 23 per cent are contract producers
- 18 per cent are designers of consumer goods

Nineteen sub-sectors are represented in the survey, including:	
Food and beverages	27%
Grocery and supermarkets	20%
Consumer electronics	14%
Apparel, accessories and footwear	14%
Health, beauty and cosmetics	14%
Department stores	12%
Automotive	10%

Company size and roles

In the sample, **42 per cent** of the companies are large, with **250 or more employees.** The remaining **58 per cent** are small or midsize companies that employ between **10 and 249 people.**

All the respondents have senior roles in their organisations: **28 per cent** are c-suite executives or

board members and **72 per cent** are vice-presidents, directors or department heads (level C-1). They span a range of functions, with the most common being marketing, finance, customer service and IT.

Acknowledgments

Thank you to everyone who completed the survey. We also want to thank our interviewees for their time and insights:

Kate Hardcastle MBE

Consumer expert and retail strategist

Gareth Hughes

Executive director retail technology, The Estée Lauder Companies

Bryan Lewis

Senior technology executive in the toys and games industry

Sagar Mehendale

Solutions architect, Morrisons

Adrian Mosley

Chief digital officer, Seasalt

Lynda Theard

Executive director e-commerce, Europe, Claire's

