BUILDING THE CONNECTED STORE: A RETAIL PLAYBOOK

CONTENTS

INTRODUCTION

The retail industry is in a state of flux. Consumer spending patterns, demographic changes and the online shopping revolution have created a challenging retail environment. While physical stores have been hit hard, internet retailers are not exempt either. ASOS' profit warning towards the end of 2018 shook the retail sector. With Europe's share of the Top 250 global retailer's revenues dropping from 39.4% to 33.8% over a ten year period (according to Deloitte), many major retailers including Gap, Toys'R'Us, Carrefour, have chosen to close some or all of their physical stores.

The market is complex. Multiple factors including discounting, supply chain issues, and rapidly changing fashion and food trends all have an impact on retail performance. eCommerce has long been touted as the bogeyman to the high street, clawing away footfall and profits. However, while technology been instrumental in the changing fortunes and business models of retailers, it could also ultimately hold the key to the success of the physical store. In the future, online retailers and physical retail stores will in fact be closer than before.

Consumers want an ever more connected shopping environment, one which combines the physical and the digital into a seamless experience. This 'bricks and clicks' model, pioneered in the early stages of online retail, has benefits for companies and customers. We expect it to continue and increase.

We wanted to understand retail market challenges from the perspective of consumers; to know how they shop and what they want from the retail experience. Retailers can then use this knowledge to adapt. We spoke to over 5,000 consumers across the UK, France and Germany. We asked them how they feel about the physical retail experience compared to the online, the last time they shopped in a store and why they chose to do so, as well as the technology they'd like to see in-store.

The research shows that now is the time for retailers to start laying the foundations for the future shopper, to meet their needs and expectations. We've used the data, and our position in the market, to create three "plays" for retailers. These plays address the needs of today's store, tomorrow's store, and preparation for whatever the future holds.

Spencer Hinzen
Director, Business Development EMEA at Ruckus Networks

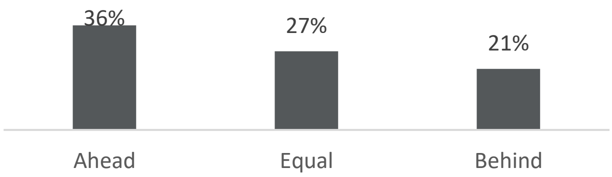
THE RESEARCH

THE RESULTS

Physical versus digital experience

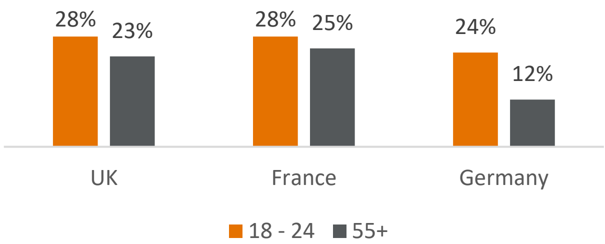
Our research (conducted online) first asked if shoppers thought the in-store retail experience was behind, equal to, or ahead of, the online experience. For retailers with a physical environment, the results provide some optimism. Across France and the UK, the response was split roughly into thirds, and in Germany 47% felt the in-store experience was ahead.

Q. In general, do you think the in-store retail experience is behind, ahead or equal to the online shopping experience?



However, younger generations are more likely to consider the in-store experience to be behind than older generations. 28% of French and UK consumers aged between 18-24, and 24% of Germans aged between 18-24 felt this way. In contrast, 12% of German, 25% of French, and 23% of UK consumers over the age of 55 felt the in-store experience was behind.

Q. Respondents who think the in-store retail experience is behind the online shopping experience



Why people go in-store rather than online

Next, we asked respondents to think about the most recent time they deliberately went into a physical retail store to make a purchasing decision, and which three reasons best described why they chose the in-store experience over an online one.

The most popular answer in France and Germany was that customers preferred a physical point of sale (being able to interact with a sales assistant) - 32% in Germany, 38% in France. In the UK customers wanted to physically purchase items after browsing online or in-store (36%), though preference for a physical point of sale was close behind at 34%.

Other popular responses for this question included wanting to get better expertise or knowledge from staff on products (27% in Germany) and wanting to see live demos/products in real life (26% in Germany, 25% in France and 22% in the UK).

UK	France	Germany
I wanted to physically purchase the item(s) after browsing online/ in-store 32%	I prefer having a physical point of sale 38%	I prefer having a physical point of sale 32%
I prefer having a physical point of sale 30%	I wanted to physically purchase the item(s) after browsing online/ in-store 30%	I wanted to get better expertise/ knowledge from staff on products 27%
I wanted to see live demos/ the product(s) in real life 22%	I wanted to see live demos/ the product(s) in real life 25%	I wanted to see live demos/ the product(s) in real life 26%

Across all countries more consumers wanted to browse items to then buy in-store (23%) rather than buy online (16%) later. Nearly a quarter of Germans and just under a fifth of UK consumers had more confidence in the store’s stock availability (23% and 16% respectively). Younger shoppers in France and Germany tended to have different responses to their older counterparts. In France, those aged 18 – 24 and 25 – 34 were most likely to go in-store to physically

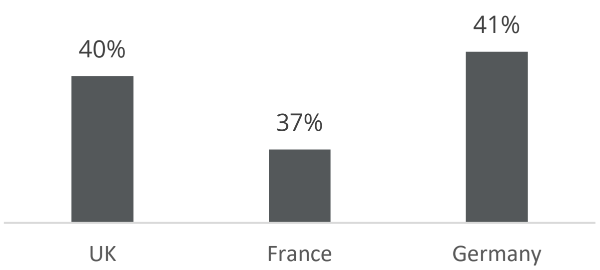
purchase the item after browsing online or in-store (42% and 35%). In Germany, most (37%) 18 – 24-year olds chose to go in-store as they wanted to see live demos/the products in real life. They were also far more likely to browse items to buy online later (27% compared to a national average of 14%), and less likely to prefer a physical point of sale (23% compared to a national average of 32%).

Technology and the customer experience

The retail technology sector is booming, and there are an increasing number of options for retailers to buy and implement within shops. According to IDC almost half of UK retailers' IT budgets will be dedicated to modernisation and innovation. But what do customers want to see or have access to when shopping?

When asked to select which three technologies they'd like to see in-store, across all countries, there was a clear preference for real-time stock availability (41% in Germany, 40% in the UK and 37% in France). This was the favourite for all age groups in all countries.

Q. Percentage of respondents who selected real-time stock availability as a technology they'd like to see in-store



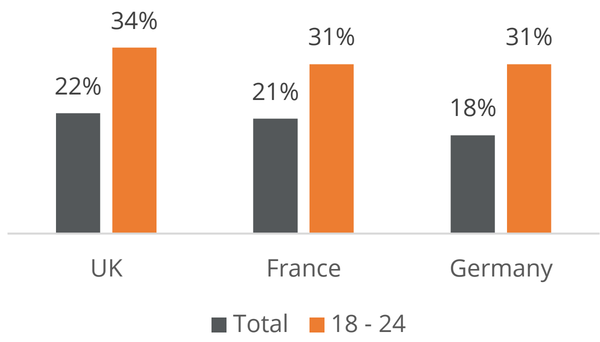
UK shoppers also wanted to see technology used to implement self-service ordering stations, self-service payment apps, and free Wi-Fi in store (18%, 22% and 22% respectively). Young people in the UK were most likely to want free Wi-Fi, 34%, 26% and 28% respectively for those aged 18-24, 25 – 34 and 35 – 44.

After real-time stock availability, German shoppers wanted to see technology such as free Wi-Fi (18%), self-service payment apps (15%), electronic pricing (15%), augmented reality (13%) and self-servicing ordering stations (13%).

In France, 21% wanted Free Wi-Fi, 21% wanted to see self-service payment apps and 18% wanted to see augmented reality (AR). Interestingly this AR number was significantly higher than other countries.

Across all countries, younger shoppers wanted more technology in-store than the national average. For example, Germans aged 18 – 24 were 6% more likely to want smart interactive mirrors, 11% more likely to want self-service payment apps, and 13% more likely to want free Wi-Fi.

Q. Demand for free Wi-Fi among shoppers



The data exchange

For retailers, understanding their customers and how they shop is essential to in-store strategy. This has driven a rise in everything from geo-tracking to personalised deals. Crucial to this is being able to access information about shoppers. We asked respondents which services (out of personalised promotional notifications, free Wi-Fi or self-service checkout via their phone) they would be willing to provide their personal details to gain access to.

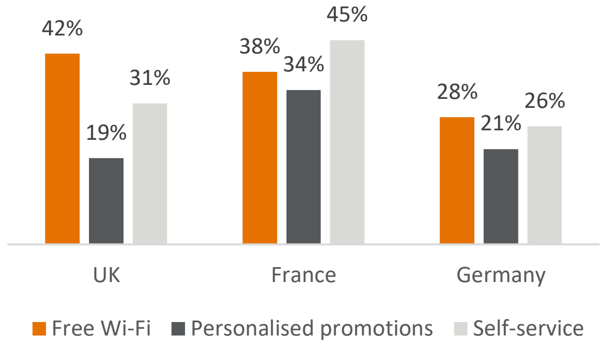
Q. Which services respondents across all countries would be willing to exchange their personal data for access to

	Total	Germany	UK	France
Personalised promotional notifications on my phone/ similar device	18%	13%	17%	26%
Free Wi-Fi	18%	13%	21%	21%
Self-service checkout via my phone/ similar device	18%	15%	19%	24%

Across all three countries, the most popular response was "none of these" – presenting a barrier for retailers to overcome as they look to provide new services. However, in France only 40% responded "none of these", compared to 58% in Germany and 51% in the UK. Nearly a fifth of Brits would provide their data in order to access each service. In France, a fifth would provide data in order to access free Wi-Fi, while nearly a quarter (26% and 24%) would do so for personalised promotional notifications and self-service checkout via their phone.

Age was a key factor. Only 22% of respondents aged 18- 24 in France and 27% in the UK responded, "none of these", compared to national averages of 40% and 51%. 42% of UK respondents aged 18 - 24 would provide data in exchange for free Wi-Fi, 31% for self-service checkouts, and 19% for personalised notifications, while the numbers in France were 38%, 45% and 34% respectively. In Germany, where nationally they were most reluctant to provide data in exchange for services, just 32% of those 18 - 24 responded "none of these", though they were less likely than their French and UK peers to exchange data for each service.

Q. Percentage of 18 – 24-year olds who would exchange personal data for each service



Wi-Fi and the retail brand

Another consideration when bringing new technology into a store environment is how it might impact brand perception if it doesn't work as customers expect.

I would feel a lack of trust in the brand	13%
I would abandon my visit and go to another brand's store	7%
I would be inclined to spend less money in the store	9%
I would be inclined to spend less time in the store	17%
I wouldn't return to the store for any future purchases	6%
I would advise others not to shop there	4%
None of these	52%
Don't know	12%

When it comes to experience of poor Wi-Fi connectivity, we presented respondents with a range of options, from lack of trust to leaving to go to another store. Almost a fifth (17%) said they would be inclined to spend less time in-store, and just over one in ten (13%) said they would feel a lack of a trust in the brand.

Overall, respondents in France (52%) and Germany (53%) would have some sort of negative response or didn't know how it would make them feel, while in the UK this number was 40%.

The local perspective

Germany

In Germany, it was clear that there is something about the in-store retail experience that appeals to consumers. 47% believe that the in-store experience is ahead of the online compared to just 27% and 29% for the UK and France. They go in-store for a range of reasons, but a physical point of sale was key, alongside being able to see the products in real life and browsing to buy later. This may be linked to a cultural preference for checking purchases thoroughly before buying them.

Our research showed that there is interest in a range of different in-store technologies, but along with their counterparts in France and the UK, real time stock availability is by far the most popular choice (41%).

Q. Why German respondents chose the in-store experience

I wanted to get better expertise/ knowledge from staff on products	27%
I wanted to browse items to buy online later	14%
I wanted to browsing items to buy in-store later	23%
I wanted to physically purchase the item(s) after browsing online/ in-store	10%
I had more confidence in the store's stock availability	23%
I wanted to see live demos/ the product(s) in real life	26%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	32%
None of these	10%
Don't know	8%

As retailers move to new business models, being able to understand their customers via personal details will be a key challenge. German consumers are on average more reluctant to hand over personal data, however a younger generation of shoppers are more open to exchanging data for services.

France

The rapid rise of e-commerce platforms that appeared at the end of the 1990s, the massive adoption of smartphones and the advent of the ATAWAD trend ("Anytime, Anywhere, Any Device") profoundly transformed French consumers' purchasing behaviour and for many, online shopping has become a preferred channel, especially in the clothing, travel and culture sectors. With the decline in visits to physical stores, many retailers have had to rethink their distribution strategy. However physical commerce still occupies a strategic and dominant place in the commercial landscape in France. For example, a 2017 Paris Retail Week survey found that 60% of these respondents wanted stores where they could "do something other than just buying products".

In France, we see a split between those who think retail is ahead, equal to, or behind the online experience, with nuances between each generation of shopper. This market values stores as buying locations, but each generation of shopper wants different things. It is important that retailers are aware of the differences for each audience they are trying to target.

Q. Percentage of French respondents who think the in-store retail experience is behind, ahead or equal to the online shopping experience?

	18 – 24	25 – 34	35 - 44	45 – 54	55+
I think that the in-store retail experience is ahead of the	27%	25%	28%	21%	34%

online experience					
I think that the in-store retail experience is equal to the online experience	34%	35%	29%	32%	28%
I think that the in-store retail experience is behind the online experience	28%	24%	27%	25%	25%

French shoppers were enthusiastic about a range of technologies, including augmented reality, electronic pricing and smart interactive mirrors. Compared to the UK and Germany, this was the only country where a minority of respondents would not share their data to access services (40% compared to 58% in Germany).

Q. Most popular technologies that French shoppers would like to see in-store

Real time stock availability (i.e. up to date details on whether the product is available in that store)	37%
Free Wi-Fi	21%
Self-service payment apps (i.e. being able to scan your shopping as you go to avoid queuing at the tills at the end)	21%
Augmented reality (i.e. being able to see the product in a real-life situation, e.g. Ikea's AR app)	18%

The UK

In the UK, consumers are split between their preference for online and in-store. They tended to have gone in-store to purchase an item, with the second most common reason being preference for a physical point of sale.

UK shoppers went in-store for a wide variety of reasons. This means retailers serving the UK market need to ensure they're able to meet all these possibilities, using technology to do so.

I wanted to physically purchase the item(s) after browsing online/ instore	32%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	30%
I wanted to see live demos/ the product(s) in real life	22%
I wanted to browsing items to buy instore later	19%
I had more confidence in the store's stock availability	16%

Interestingly, when selecting three technologies to see in-store, UK shoppers showed a strong preference for some technology over others (just 7% wanted to see AR in-store for example, and only 6% wanted smart mirrors), but they did want technology that would make shopping and purchasing easier (for example stock availability was of interest to 40% of respondents). This provides an opportunity for retailers and technology vendors to work together to develop technologies and solutions that solve these challenges.

Q. Most popular technologies that UK shoppers would like to see in-store

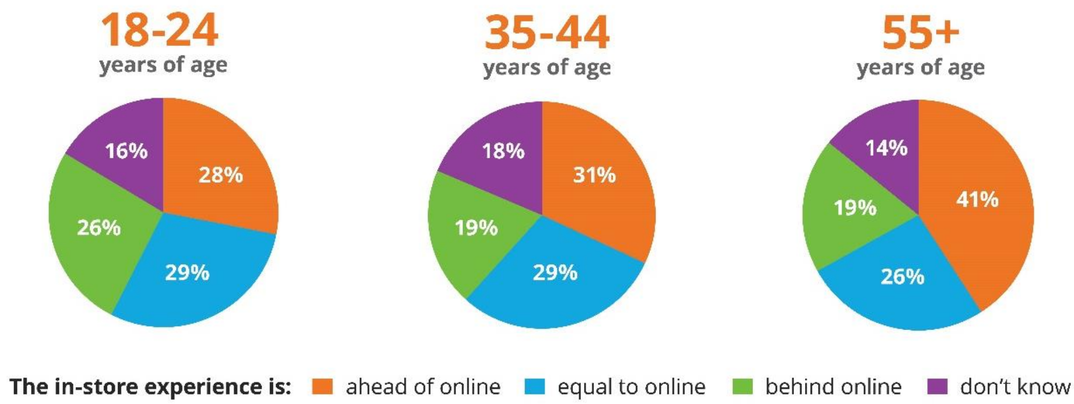
Real time stock availability (i.e. up to date details on whether the product is available in that store)	40%
Free Wi-Fi	22%
Self-service payment apps (i.e. being able to scan your shopping as you go to avoid queuing at the tills at the end)	22%
Self-service ordering stations (i.e. the ability to order from another store or warehouse)	18%
Electronic pricing (i.e. price tags that adjust throughout the day)	12%

With Europe's share of the Top 250 global retailer's revenues dropping from 39.4% to 33.8% over a ten year period, many major retailers are feeling the pressure including Gap, Toys'R'Us, Carrefour, and have chosen to close some or all of their physical stores. We surveyed 5,245 consumers across EMEA to understand the challenge for retailers.

The Retail Challenge: Online vs Offline

Consumers still prefer shopping in-store to online. Around **two-thirds** surveyed feel that the in-store experience is either ahead or equivalent to the online experience.

However, this trend is changing with a **younger demographic:**



Meeting Consumer Demands: Today and Tomorrow

Consumers want an ever **more connected shopping environment**, one which combines the physical and the digital into a seamless experience. We asked consumers why they chose to go instore and what services were most valuable:

34%
Interact with sales assistants

26%
See the product in real life

24%
Physically purchase the item

To **anticipate their needs in future**, we then asked what services consumers want to see in store. Retailers can prioritise these services to add further value to the consumer experience:

40%
Check real-time stock availability

20%
Access free Wi-Fi

19%
Use self-service payment

The Cost of Consumer Data

For retailers, **understanding their customers** and how they shop is essential to in-store strategy. Crucial to this is being able to compliantly access information about shoppers.

51%
will not give up data for access to services

We asked respondents **what services they would be willing to exchange their data for:**

- Self-service checkout
- Personalised promotional notifications
- Free Wi-Fi

The Future of Retail

Retailers need to **invest today in robust technology** to not only allow them to deliver the services consumers expect, but to lay the groundwork for the services to **meet consumer needs of the future**, including:

- Digital Signage
- IoT
- VR
- Beacons
- Mobile Notifications

The future of retail depends on robust connectivity. As demand from devices, sensors and applications continue to increase, the reliability and performance of the network becomes business critical.

With Ruckus' networking solutions, we can help you deliver great experiences to your customers, no matter how complex the demands, for success in today and tomorrow's retail environment.

Find out more here: ruckusnetworks.com

Sources: Ruckus retail survey 2019, https://www2.deloitte.com/content/dam/Deloitte/at/Documents/about-deloitte/global-powers-of-retailing-2018.pdf

THE CONNECTED STORE: PLAYS

PLAY 1: USE TECHNOLOGY TO PROVIDE IMMEDIATE VALUE TO THE IN-STORE ENVIRONMENT

Bricks-and-mortar retail is under pressure in Europe.

In the UK, 32 major retailers have closed their doors since 2008, resulting in the loss of 115,000 jobs. In France, one of the world's largest hypermarket chains Carrefour is aiming to reduce its sales area by 400,000 square metres globally while simultaneously looking to expand its number of convenience stores. In Germany retail sales dropped 2.1% YoY at the end of 2018.

To overcome these tricky market conditions retailers need to act today to adapt to their target market's needs and wants. They need to understand what each generation wants from a physical store environment in the country they operate in. This is essential to ensuring that the store of today can thrive.

Understand the generation you're targeting

It's no surprise of course that there are differences in the way different age groups shop.

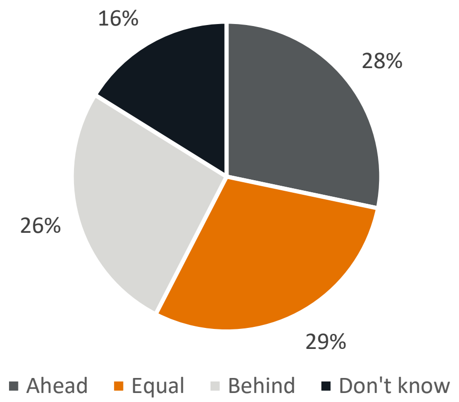
Q. Why each age group of respondents opted to go in-store (when asked to select up to three)

18 – 24	I wanted to see live demos/ the product(s) in real life – 27%
25 – 34	I wanted to see live demos/ the product(s) in real life – 29%
35 – 44	I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store) I wanted to physically purchase the item(s) after browsing online/ instore - 25% each
45 – 54	I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store) – 32%
55+	I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store) – 44%

A generation born into a digital world will be more reliant on technology as part of the process than older counterparts who might value being able to view products and personal interaction more highly.

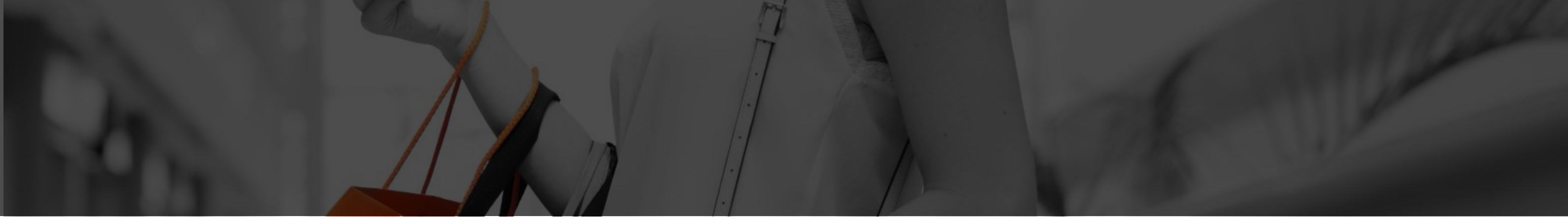
However, even retailers born online understand the need for Omnichannel. According to a Telegraph news story in December 2018, Amazon Go has a planned store opening for Oxford Circus, London, which will allow shoppers to purchase items without the need for a checkout.

Our data shows that when it comes to the perception of the retail experience online and offline, there's roughly a third split between whether the offline retail experience is ahead, equal to, or behind the online experience, when looking at those in the 18 – 24 age range:



This small but interesting tendency of younger shoppers to buck their national trend should be of concern to retailers. This was true even in Germany, where at a national level there was almost a majority preference for in-store being ahead of online (47%). In the future, as new generations come through, it's important that retailers have closed the gap and built up the benefits of the in-store experience.

It is also interesting that in the present at least, across all countries people chose to go in-store to execute a purchase. In the immediate term



retailers need to be implementing technology that enables this. At a basic level, this can help physical stores show their worth to the market now and set a foundation for the store of tomorrow.

Quick wins

The data shows us that there is an opportunity for retailers to address some in-store elements with technology at a very basic level, for example live stock levels and self-service technology, to provide extra value to the in-store environment.

Q. Top five most popular technologies respondents wanted to see in-store

Real time stock availability	40%
Free Wi-Fi	20%
Self-service payment apps	19%
Self-service ordering stations	15%
Electronic pricing	14%

These can be implemented simply and quickly and provide the foundation to meet the needs of a younger demographic as their spending power and importance in the market grows in the short term.

In adapting to these challenges, retailers need to understand what their consumers want from the in-store experience. Much is made about the impact of online, but this oversimplifies the problem and the solution. Retailers need to ensure that they are serving customers on their terms, delivering the experience demanded by the modern shopper no matter where they are.

Delivering value now

Retailers understand the benefit that technology can have on their stores. However, knowing which technology to implement, when to do so, and how to show return on investment, are trickier and could make purchasing decisions more complicated.

It's important that the market goes back to basics. A key understanding of the audience you're targeting, how they feel about the current retail experience and what they value from it is essential.

Retailers need to look at the immediate steps they can take now to improve their instore environments for each generation and demographic they serve. This will create a foundation for the next stage of in-store digital transformation for retailers.

PLAY CHECKLIST

- ○ **Segment and insight:** Define the demographic you're targeting and understand what they value in the retail experience
- ○ **Remove barriers:** Ensure you're facilitating purchasing within the store environment - its why shoppers go in-store
- ○ **Add value to the experience:** Bring immediate value in-store with technology that supports the purchase cycle, for example real time stock availability

PLAY 2: USE TECHNOLOGY TO BUILD TOMORROW'S STORE - THE RETAIL SHOWROOM

It's no secret that retail is a forward-looking market. Trends and buying decisions are made seasons ahead of when products hit the shelves. The same approach should be applied to in-store technology decisions. We know from our data that people shop in a certain way today, but the way they want to shop tomorrow may be different. We can see the disconnect between how people want to shop and the experience they have on the high street today.

In the immediate future, retailers need to begin adapting to a retail showroom environment. This environment will inform and showcase products, but still drive sales as the goal through an easier purchasing process. The benefits for consumers are clear, and ties in to why they go in-store (to see products in real life, experience demos, and get better knowledge from staff). It is now up to retailers to use technology to empower their staff on the shop floor to deliver this.

Consumer demand

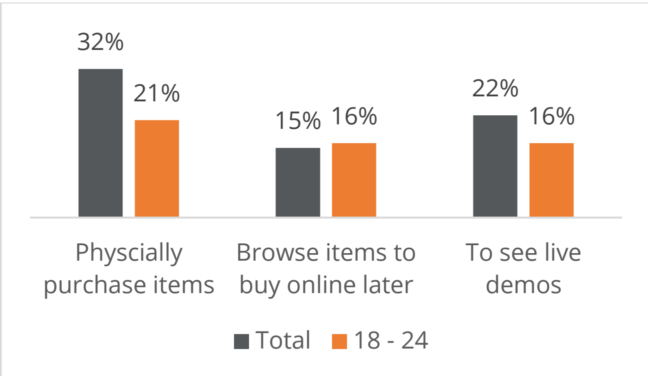
We know that there's a demand for this technology. All the technologies that we put into our survey received interest from at least one in ten younger shoppers (those under 34) and this combined with our understanding of why shoppers go in-store (to buy and browse) creates a compelling reason for retailers to start adapting to this trend.

Q. Demand for technology in-store by those aged 18 - 24

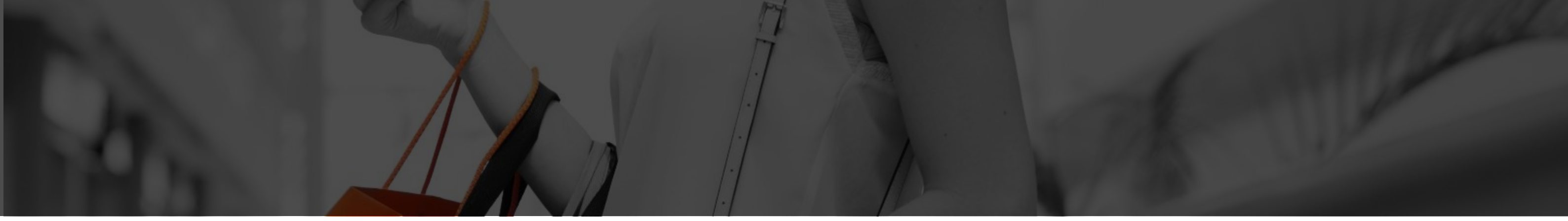
I wanted to get better expertise/ knowledge from staff on products	18%
I wanted to browse items to buy online later	24%
I wanted to browsing items to buy instore later	22%
I wanted to physically purchase the item(s) after browsing online/ instore	25%
I had more confidence in the store's stock availability	15%
I wanted to see live demos/ the product(s) in real life	27%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	22%
None of these	9%
Don't know	11%

In the UK, while a third of shoppers 25 and over went in-store to purchase, the results from the 18-24 age group were more diverse. 21% wanted to physically purchase a product, compared to a national response of 32%. In terms of the technology that Brits wanted to see in-store, the most popular option was around real time stock availability (for all age groups). Almost of third of those (27%) aged 18 - 24 wanted to see self-service ordering stations, and 30% of those aged 25 – 34 wanted to see self-service payment apps.

Q. The three most popular reasons 18 – 24-year olds went in-store, and national response



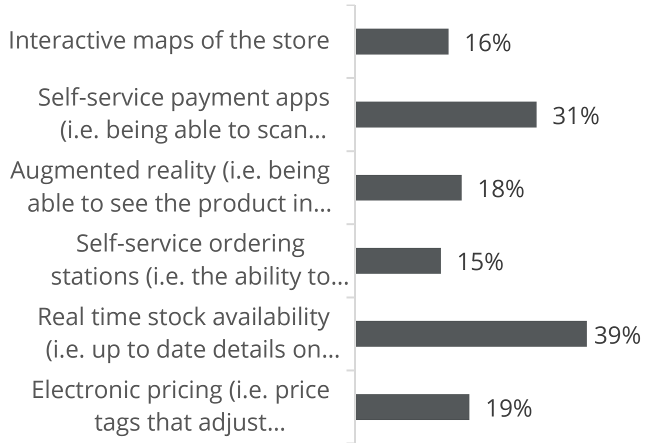
In Germany, there was enthusiasm for a range of technologies as well. 13% of Germans wanted to see augmented reality in-store, significantly higher than the UK (7%). Over a quarter (26%) of those aged 18 – 24 wanted to see self-service payment apps, and 31% wanted to see Free Wi-Fi (compared to 18%



nationally). This younger generation were also twice as likely (12% to 6%) to want smart interactive mirrors in-store.

There was also interest in new technologies in France. Similarly to Germany, 31% of French 18 – 24-year olds wanted free Wi-Fi in contrast to 21% nationally. The French were most enthusiastic about augmented reality too, with almost a fifth nationally (18%) wanting this technology, and 20% of 35 – 44-year olds specifically. French shoppers also went in-store to browse and buy later (a fifth of all respondents, but significantly almost a third of those aged 18 – 24).

Q. Most popular technology that French consumers aged 18 – 24 wanted to see in-store



A vision for the retail showroom

Retailers need to prepare for the “retail showroom”, but what does that look like? We see it as a retail environment where products are showcased in new and engaging ways. There’s an interactive element to drive interest in products using augmented reality, smart mirrors and interactive maps to engage shoppers. For purchases, electronic pricing, real time availability, and self-service ordering empower customers to be able to get the products they want in a way that suits them.

For retailers, technology will help to streamline shop floor operations. Tablets for staff can better equip them with in-depth, real time expertise and product or stock knowledge. Interactive displays and smart mirrors could showcase products in other colours and enable upselling, cross-selling and increased purchases. A better technological infrastructure will make demonstrations more reliable and useful.

This technology is just around the corner, and consumer demand is there. Retailers must invest today to make this retail showroom a reality for tomorrow.

PLAY CHECKLIST

- ○ **Prioritise innovation:** What services and application are critical to your future success? Define and research what’s needed to deliver these to your customers and staff
- ○ **Future-proof your brand:** Invest in technology which showcases products, like augmented reality and enables purchasing like self-service apps
- ○ **Lay the foundation now:** Ensure high-quality, reliable Wi-Fi is available for customers, and as a foundation for the future store environment

PLAY 3: CREATE A TECHNOLOGICAL FOUNDATION FOR THE CONNECTED STORE

The retail industry is undergoing rapid and drastic transformation. Retailers with a physical presence need to find a way to stay ahead. The decisions that retailers make now when investing in technology could impact performance in 5, 10, 20 years' time. The future store is being designed and developed right now. Decisions around the technology for business-critical functions need to be chosen today and future proofed for the unknowns that retailers can't even anticipate yet. No easy task.

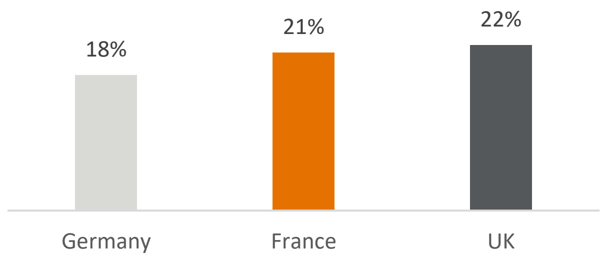
This requires retailers to create a foundation of technology to enable whatever the future of retail looks like. Wi-Fi is key to this. But what model of data exchange, if any, do customers want? How can retailers create the best technological foundation within their stores? As demand grows through a boom in devices and use cases, this network needs to be reliable and future proofed for the multi-gig demand that will inevitably follow.

Technology crunches

As new technologies find their way in-store, from the basic elements of play one, to the showroom of play two, and the unknowns of the next generation of store in play three, retailers could face a technology crunch. Business critical functions, like Point of Sale and location-based promotions, will all need to run on one network using a myriad of radio technologies, as well as the prospect of multi-gig demand.

Wi-Fi is fast emerging as the network foundation of choice. We know that consumers want to see and use Wi-Fi in-store (32% of those aged 18 – 24). However, it's not just a nice to have. It is crucial to supporting retail operations. From stock checking, Point of Sale, location tracking, in-store demonstrations, marketing and promotions to mention just a few.

Q. Percentage of respondents who want to see free Wi-Fi in-store



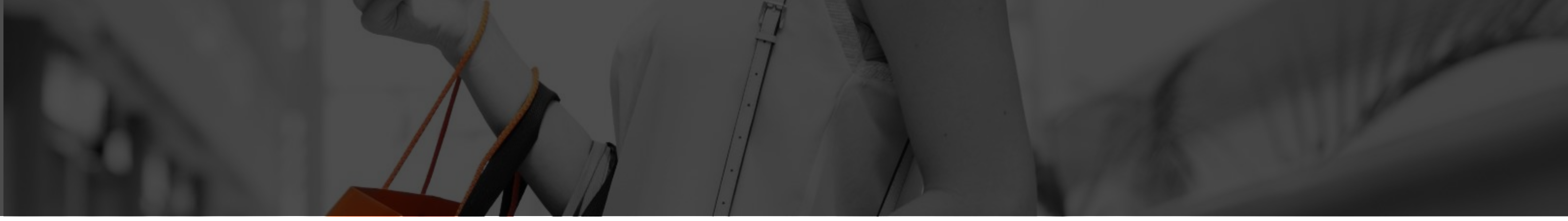
The network needs to be reliable and future proofed, but also able to overcome the challenges of the retail environment. This ranges from concrete building materials hindering radio frequency signals to interference from other devices and networks.

Enabling a data exchange

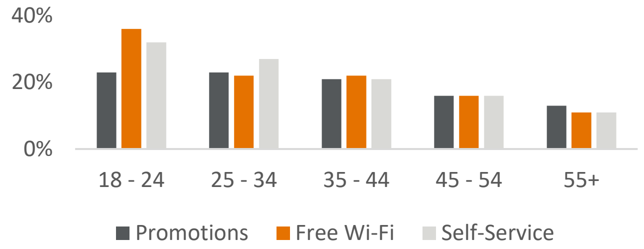
Retailers also need to think about their business models, and how they connect the browse and purchase cycle. Retailers need access to customer data to ensure that they can offer relevant promotions and adapt their experience to meet consumer demand. However, we know from our research that there is a reluctance to provide data to access these new services. The onus is on retailers to demonstrate why it is worth it for the customer to take part in this data exchange.

Q. Percentage who replied "none of these" or "don't know" when asked what technology they'd exchange their data to access

	Total	**18 - 24**	**25 - 34**	**35 - 44**	**45 - 54**	**55+**
None of these	51%	28%	39%	40%	53%	66%
Don't know	11%	12%	11%	15%	10%	8%



The next generation of shoppers are more likely to provide their data however, which is something for retailers to consider as they design the store of the future.



In France nearly half of those aged 18 – 24 (45%) would exchange their data in order to access self-service devices, and 38% for free Wi-Fi, along with 34% for personalised promotional notifications

In the UK, 42% of those 18 – 24 would provide personal details for Free Wi-Fi, nearly a third (31%) for self-service checkout and 19% for personalised promotions. This may be driven by younger UK shoppers believing that the service they are receiving is worth more than the value they place on the data they are providing. It could also be driven by other factors, such as limited mobile data signal within shopping centres or the cost of mobile data packages.

While in Germany at a top level it looks like a tough sell for retailers, 18 – 24-year olds are significantly more likely to be willing to engage in a data exchange. 21% would do this for personalised promotional notifications (13% nationally), 28% for Free Wi-Fi (13% nationally) and 26% for self-service checkout (15% nationally).

Invest now to build the store of the future

Retailers can answer the challenges of today and anticipate the challenges of tomorrow. However, the future store is still an unknown. The generation after Generation Z will be even more technologically savvy than ever before and demands on bandwidth from capacity-hungry in-store usage will put pressure on networks.

Finding the right balance between performance, features, and cost is essential. The network needs to provide a combination of capacity, reliability, and affordability, and be able to handle potentially thousands of shoppers connecting at once. It must also provide a great user experience no matter how challenging the environment – retailer customers don’t want to have to think about the reasons the technology isn’t working, they’ll just be frustrated that it isn’t.

The choice of technical foundation that retailers make today will impact store performance in 10 years’ time. It is essential that they make the right choices.

PLAY 3 CHECKLIST

- **Be Data-safe:** Adapt your in-store marketing data collection to the generation you’re targeting to deepen your relationship, compliantly
- **Personalise the experience:** Invest in technology which can leverage the insights from customer data to deliver services they want like promotions, digital signage, IoT and beacons creating bespoke customer journeys.
- **Keep it neutral:** Invest in gigabit-capable technology which is both consumer-friendly, and radio frequency-agnostic, opening up a broad range of services and applications to delight your customers

APPENDIX

FULL RESEARCH RESULTS

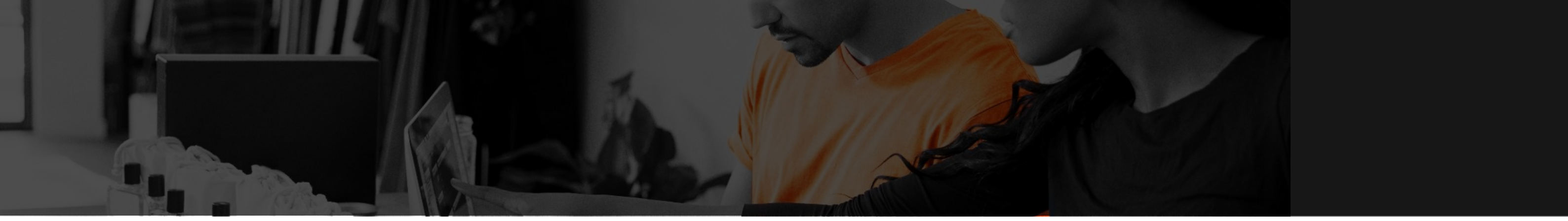
UK

Q1. For the following questions by "behind", we mean that this style of shopping is slow in developing and expanding customer experiences (e.g. in customer service, personalising their services/ customer experience etc.). By "ahead" we mean that this style of shopping is in the lead in developing and expanding customer experiences. In general, do you think the in-store retail experience is behind, ahead or equal to the online shopping experience? (Please select the option that best applies)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
I think that the in-store retail experience is ahead of the online experience	27%	28%	26%	23%	23%	23%	29%	31%
I think that the in-store retail experience is equal to the online experience	27%	24%	31%	28%	26%	29%	28%	26%
I think that the in-store retail experience is behind the online experience	24%	26%	23%	28%	28%	26%	21%	23%
Don't know	21%	22%	20%	21%	22%	22%	22%	20%

Q2. For this question, we would like you to think about the most recent time you deliberately went into a physical retail store to make a purchasing decision. Regardless if you purchased an item or not...Which THREE, if any, of the following BEST describes why you chose the in-store experience over an online one on this occasion? (Please select your top three options. If you have never deliberately chosen to go in store over online, then please select the 'Not applicable' option)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
I wanted to get better expertise/ knowledge from staff on products	14%	15%	13%	13%	12%	9%	11%	19%
I wanted to browse items to buy online later	15%	15%	15%	16%	22%	18%	13%	12%
I wanted to browsing items to buy instore later	19%	17%	21%	14%	15%	17%	18%	22%
I wanted to physically purchase the item(s) after browsing online/ instore	32%	29%	34%	21%	36%	31%	32%	33%
I had more confidence in the store's stock availability	16%	16%	16%	12%	17%	13%	16%	18%
I wanted to see live demos/ the product(s) in real life	22%	20%	23%	16%	24%	21%	26%	21%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	30%	29%	30%	15%	21%	22%	27%	41%
None of these	9%	11%	8%	10%	8%	11%	12%	8%
Don't know	5%	6%	5%	14%	5%	9%	4%	2%
Not Applicable - I have never deliberately chosen to go in store over online	13%	15%	10%	17%	11%	11%	14%	12%

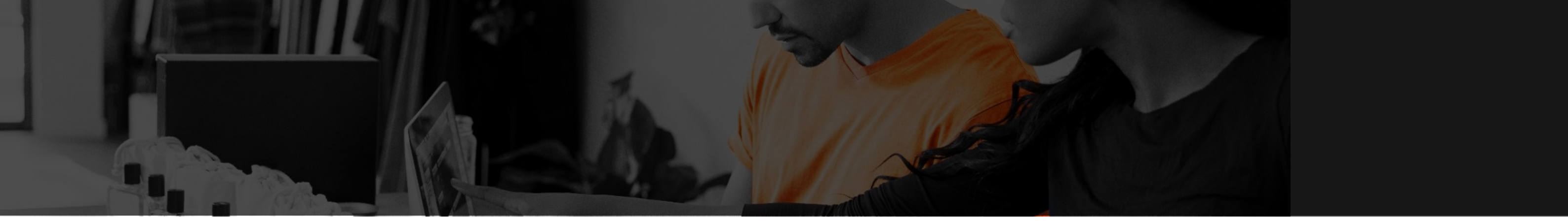


Q3. Thinking specifically about shopping within physical retail stores...Which THREE, if any, of the following attributes would you most like to see/ have access to whilst shopping in-store? (Please select all up to three options)

	Total	**Gender**		**Age**				
		Male	**Female**	**18-24**	**25-34**	**35-44**	**45-54**	**55+**
Electronic pricing (i.e. price tags that adjust throughout the day)	12%	14%	9%	13%	15%	13%	11%	10%
Real time stock availability (i.e. up to date details on whether the product is available in that store)	40%	38%	42%	43%	41%	42%	39%	38%
Self-service ordering stations (i.e. the ability to order from another store or warehouse)	18%	16%	20%	27%	27%	19%	17%	12%
Augmented reality (i.e. being able to see the product in a real-life situation, e.g. Ikea's AR app)	7%	7%	7%	7%	9%	6%	7%	8%
Self-service payment apps (i.e. being able to scan your shopping as you go to avoid queuing at the tills at the end)	22%	21%	22%	25%	30%	23%	23%	17%
Interactive maps of the store	10%	11%	8%	12%	9%	7%	11%	10%
Special Guests/ live experiences (e.g. celebrity chefs doing cookery demonstrations or book signings)	5%	4%	6%	6%	5%	6%	5%	5%
Free Wi-Fi	22%	22%	23%	34%	26%	28%	19%	17%
Smart interactive mirrors (i.e. mirrors that can scan clothes tags, allow shoppers to alert sales assistants, offer user-specific suggestions etc.)	6%	6%	6%	10%	7%	5%	6%	4%
None of these	25%	25%	24%	11%	18%	20%	25%	33%
Don't know	10%	10%	10%	13%	7%	12%	9%	10%

Q4. For the following question by personal details, we mean information such as your name, email address, date of birth etc. Still thinking about shopping within a physical retail store...For which, if any, of the following services would you be willing to provide your personal details for in order to gain access to? (Please select all that apply)

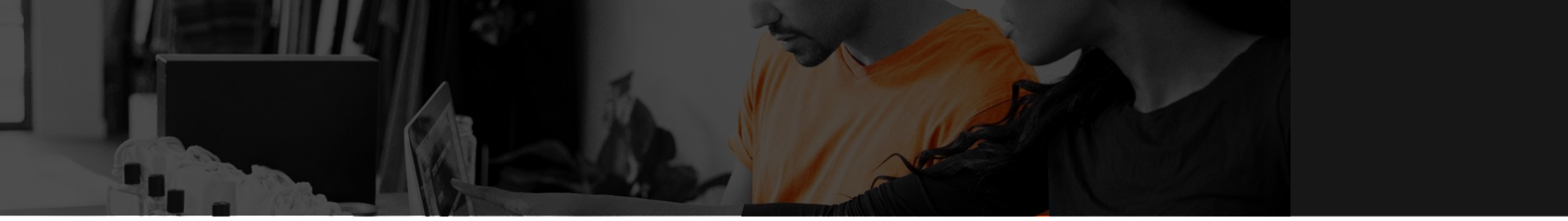
	Total	**Gender**		**Age**				
		Male	**Female**	**18-24**	**25-34**	**35-44**	**45-54**	**55+**
Personalised promotional notifications on my phone/ similar device	17%	17%	18%	19%	25%	21%	17%	12%
Free Wi-Fi	21%	21%	21%	42%	26%	24%	18%	13%



Self-service checkout via my phone/ similar device	19%	21%	16%	31%	28%	20%	18%	12%
None of these	51%	50%	51%	27%	39%	39%	51%	67%
Don't know	10%	10%	11%	14%	6%	18%	11%	8%

Q5. For this question, please imagine that whilst shopping in a store that advertised "Free Wi-fi in-store", you were experiencing poor Wi-Fi connectivity... Which, if any, of the following statements BEST describes how you would feel/ react? (Please select all that apply)

	Total	**Gender**		**Age**				
		Male	**Female**	**18-24**	**25-34**	**35-44**	**45-54**	**55+**
I would feel a lack of trust in the brand	13%	15%	11%	16%	19%	14%	14%	9%
I would abandon my visit and go to another brand's store	5%	6%	4%	4%	5%	4%	4%	6%
I would be inclined to spend less money in the store	9%	9%	8%	8%	11%	9%	8%	8%
I would be inclined to spend less time in the store	15%	18%	13%	18%	18%	16%	11%	14%
I wouldn't return to the store for any future purchases	4%	5%	3%	4%	4%	4%	2%	4%
I would advise others not to shop there	3%	4%	2%	2%	4%	1%	2%	3%
None of these	60%	56%	63%	48%	55%	55%	63%	65%
Don't know	10%	10%	10%	15%	7%	13%	10%	9%



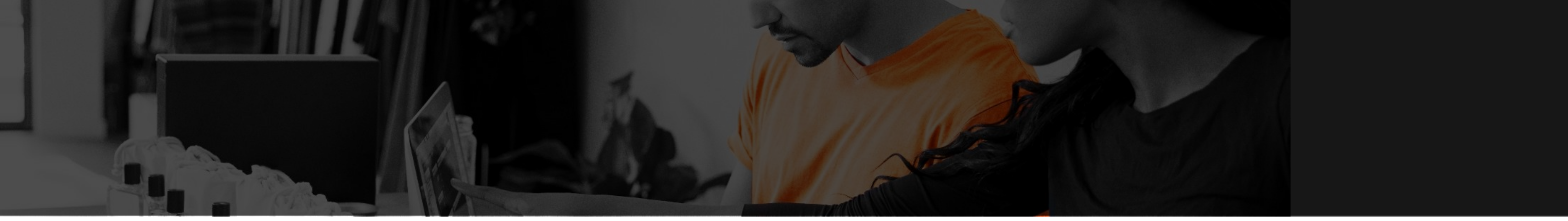
FRANCE

Q1. For the following questions by "behind", we mean that this style of shopping is slow in developing and expanding customer experiences (e.g. in customer service, personalising their services/ customer experience etc.). By "ahead" we mean that this style of shopping is in the lead in developing and expanding customer experiences. In general, do you think the in-store retail experience is behind, ahead or equal to the online shopping experience? (Please select the option that best applies)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
I think that the in-store retail experience is ahead of the online experience	29%	33%	24%	27%	25%	28%	21%	34%
I think that the in-store retail experience is equal to the online experience	31%	26%	35%	34%	35%	29%	32%	28%
I think that the in-store retail experience is behind the online experience	25%	26%	25%	28%	24%	27%	25%	25%
Don't know	15%	14%	16%	12%	15%	16%	22%	12%

Q2. For this question, we would like you to think about the most recent time you deliberately went into a physical retail store to make a purchasing decision. Regardless if you purchased an item or not...Which THREE, if any, of the following BEST describes why you chose the in-store experience over an online one on this occasion? (Please select your top three options. If you have never deliberately chosen to go in-store over online, then please select the 'Not applicable' option)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
I wanted to get better expertise/ knowledge from staff on products	20%	22%	17%	20%	17%	15%	17%	23%
I wanted to browse items to buy online later	19%	19%	20%	28%	23%	18%	20%	16%
I wanted to browsing items to buy in-store later	23%	21%	25%	31%	21%	19%	28%	22%
I wanted to physically purchase the item(s) after browsing online/ in-store	30%	26%	34%	42%	35%	32%	27%	26%
I had more confidence in the store's stock availability	22%	23%	21%	14%	19%	25%	21%	24%
I wanted to see live demos/ the product(s) in real-life	25%	26%	24%	25%	32%	22%	14%	29%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	38%	37%	40%	29%	32%	27%	35%	49%
None of these	6%	7%	6%	4%	5%	7%	10%	6%
Don't know	8%	10%	7%	7%	7%	12%	11%	6%

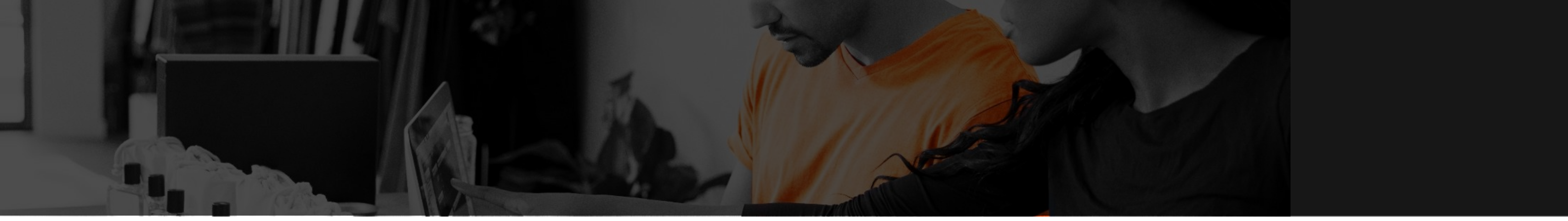


Q3. Thinking specifically about shopping within physical retail stores...Which THREE, if any, of the following attributes would you most like to see/ have access to whilst shopping in-store? (Please select all up to three options)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
Electronic pricing (i.e. price tags that adjust throughout the day)	16%	17%	15%	19%	15%	18%	10%	17%
Real time stock availability (i.e. up to date details on whether the product is available in that store)	37%	35%	40%	39%	45%	42%	35%	34%
Self-service ordering stations (i.e. the ability to order from another store or warehouse)	14%	13%	16%	15%	20%	19%	14%	11%
Augmented reality (i.e. being able to see the product in a real-life situation, e.g. Ikea's AR app)	18%	18%	19%	18%	18%	20%	16%	19%
Self-service payment apps (i.e. being able to scan your shopping as you go to avoid queuing at the tills at the end)	21%	21%	21%	31%	22%	23%	21%	16%
Interactive maps of the store	11%	11%	10%	16%	16%	8%	10%	8%
Special Guests/ live experiences (e.g. celebrity chefs doing cookery demonstrations or book signings)	6%	5%	7%	7%	9%	5%	4%	7%
Free Wi-Fi	21%	20%	22%	31%	26%	19%	22%	16%
Smart interactive mirrors (i.e. mirrors that can scan clothes tags, allow shoppers to alert sales assistants, offer user-specific suggestions etc.)	12%	11%	12%	22%	13%	12%	8%	10%
None of these	18%	19%	17%	10%	10%	15%	21%	23%
Don't know	12%	13%	12%	7%	8%	12%	12%	16%

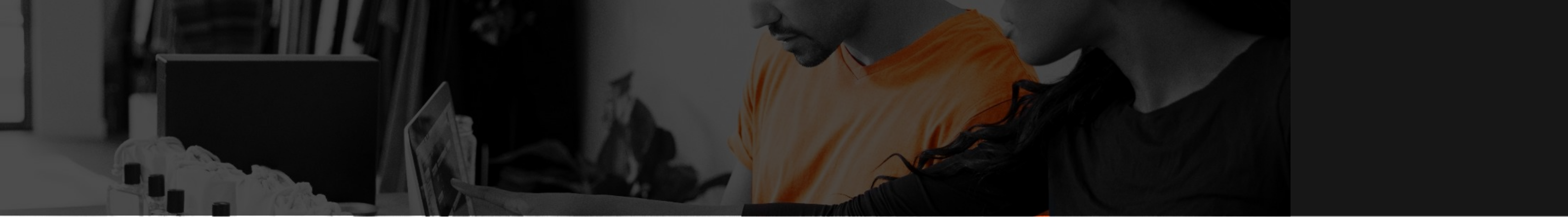
Q4. For the following question by personal details, we mean information such as your name, email address, date of birth etc. Still thinking about shopping within a physical retail store...For which, if any, of the following services would you be willing to provide your personal details for in order to gain access to? (Please select all that apply)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
Personalised promotional notifications on my phone/ similar device	26%	22%	31%	34%	31%	30%	25%	22%
Free Wi-Fi	21%	22%	19%	38%	21%	25%	23%	13%
Self-service checkout via my phone/ similar device	24%	25%	23%	45%	27%	32%	18%	17%
None of these	40%	40%	39%	22%	35%	30%	41%	49%
Don't know	12%	12%	12%	9%	13%	10%	12%	12%



Q5. For this question, please imagine that whilst shopping in a store that advertised "Free Wi-fi in-store", you were experiencing poor Wi-Fi connectivity… Which, if any, of the following statements BEST describes how you would feel/ react? (Please select all that apply)

	Total	**Gender**		**Age**				
		Male	**Female**	**18-24**	**25-34**	**35-44**	**45-54**	**55+**
I would feel a lack of trust in the brand	14%	16%	12%	18%	13%	13%	9%	16%
I would abandon my visit and go to another brand's store	9%	9%	9%	11%	9%	9%	9%	8%
I would be inclined to spend less money in the store	9%	11%	8%	14%	13%	10%	8%	7%
I would be inclined to spend less time in the store	16%	16%	17%	21%	18%	16%	23%	13%
I wouldn't return to the store for any future purchases	7%	8%	6%	8%	6%	6%	4%	9%
I would advise others not to shop there	7%	9%	5%	11%	5%	3%	3%	9%
None of these	48%	43%	53%	40%	43%	47%	50%	51%
Don't know	13%	14%	13%	10%	15%	13%	13%	13%



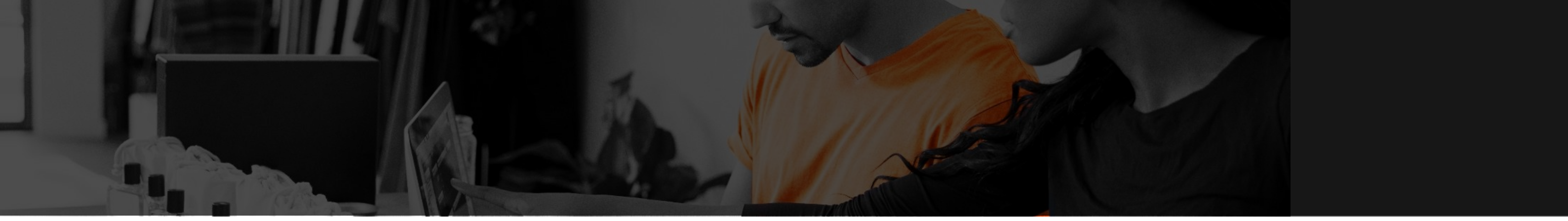
GERMANY

Q1. For the following questions by "behind", we mean that this style of shopping is slow in developing and expanding customer experiences (e.g. in customer service, personalising their services/ customer experience etc.). By "ahead" we mean that this style of shopping is in the lead in developing and expanding customer experiences. In general, do you think the in-store retail experience is behind, ahead or equal to the online shopping experience? (Please select the option that best applies)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
I think that the in-store retail experience is ahead of the online experience	47%	49%	46%	35%	41%	42%	46%	55%
I think that the in-store retail experience is equal to the online experience	26%	25%	26%	28%	27%	28%	25%	24%
I think that the in-store retail experience is behind the online experience	14%	15%	14%	24%	15%	14%	16%	12%
Don't know	13%	11%	14%	14%	17%	16%	14%	9%

Q2. For this question, we would like you to think about the most recent time you deliberately went into a physical retail store to make a purchasing decision. Regardless if you purchased an item or not...Which THREE, if any, of the following BEST describes why you chose the in-store experience over an online one on this occasion? (Please select your top three options. If you have never deliberately chosen to go in-store over online, then please select the 'Not applicable' option)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
I wanted to get better expertise/ knowledge from staff on products	27%	28%	26%	19%	22%	20%	26%	33%
I wanted to browse items to buy online later	14%	15%	13%	27%	19%	18%	12%	9%
I wanted to browsing items to buy in-store later	23%	26%	21%	23%	22%	19%	21%	26%
I wanted to physically purchase the item(s) after browsing online/ in-store	10%	13%	7%	15%	13%	10%	7%	9%
I had more confidence in the store's stock availability	23%	23%	22%	16%	19%	20%	24%	26%
I wanted to see live demos/ the product(s) in real-life	26%	26%	27%	37%	30%	24%	28%	23%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	32%	33%	31%	23%	24%	25%	31%	39%
None of these	10%	11%	10%	8%	8%	9%	10%	12%
Don't know	8%	7%	10%	7%	12%	13%	8%	5%

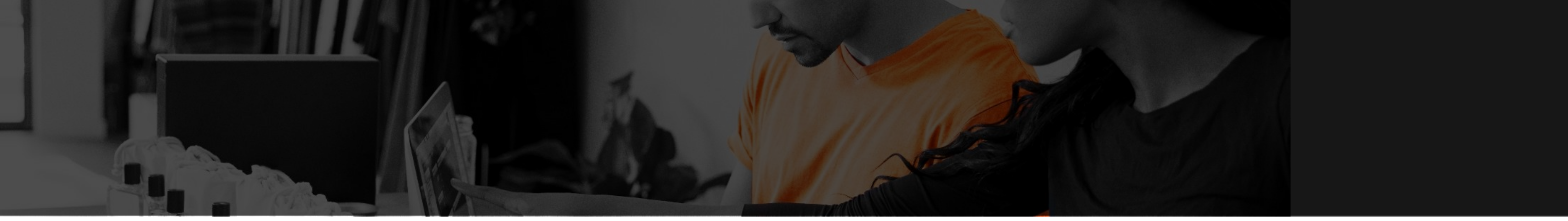


Q3. Thinking specifically about shopping within physical retail stores...Which THREE, if any, of the following attributes would you most like to see/ have access to whilst shopping in-store? (Please select all up to three options)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
Electronic pricing (i.e. price tags that adjust throughout the day)	15%	16%	13%	16%	16%	9%	17%	15%
Real time stock availability (i.e. up to date details on whether the product is available in that store)	41%	43%	39%	41%	44%	38%	41%	41%
Self-service ordering stations (i.e. the ability to order from another store or warehouse)	13%	13%	12%	18%	16%	17%	14%	8%
Augmented reality (i.e. being able to see the product in a real-life situation, e.g. Ikea's AR app)	13%	15%	11%	13%	13%	12%	14%	13%
Self-service payment apps (i.e. being able to scan your shopping as you go to avoid queuing at the tills at the end)	15%	16%	15%	26%	19%	15%	16%	11%
Interactive maps of the store	10%	13%	7%	11%	11%	12%	9%	9%
Special Guests/ live experiences (e.g. celebrity chefs doing cookery demonstrations or book signings)	6%	6%	6%	6%	7%	6%	7%	5%
Free Wi-Fi	18%	19%	17%	31%	25%	18%	17%	13%
Smart interactive mirrors (i.e. mirrors that can scan clothes tags, allow shoppers to alert sales assistants, offer user-specific suggestions etc.)	6%	8%	4%	12%	8%	9%	5%	4%
None of these	23%	19%	26%	10%	15%	16%	22%	31%
Don't know	11%	9%	12%	7%	13%	15%	11%	9%

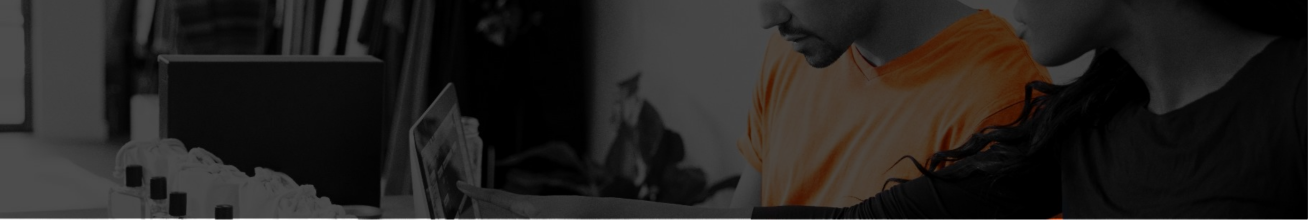
Q4. For the following question by personal details, we mean information such as your name, email address, date of birth etc. Still thinking about shopping within a physical retail store...For which, if any, of the following services would you be willing to provide your personal details for in order to gain access to? (Please select all that apply)

	Total	Gender		Age				
		Male	Female	18-24	25-34	35-44	45-54	55+
Personalised promotional notifications on my phone/ similar device	13%	15%	12%	21%	17%	15%	12%	10%
Free Wi-Fi	13%	15%	12%	28%	18%	17%	12%	8%
Self-service checkout via my phone/ similar device	15%	17%	13%	26%	27%	16%	14%	8%
None of these	58%	55%	61%	32%	41%	47%	59%	73%
Don't know	10%	9%	11%	12%	14%	14%	9%	7%



Q5. For this question, please imagine that whilst shopping in a store that advertised "Free Wi-fi in-store", you were experiencing poor Wi-Fi connectivity… Which, if any, of the following statements BEST describes how you would feel/ react? (Please select all that apply)

	Total	Gender		Age				
		Male	**Female**	**18-24**	**25-34**	**35-44**	**45-54**	**55+**
I would feel a lack of trust in the brand	12%	12%	11%	15%	15%	12%	11%	10%
I would abandon my visit and go to another brand's store	8%	9%	7%	8%	9%	9%	7%	7%
I would be inclined to spend less money in the store	9%	12%	7%	17%	13%	11%	8%	6%
I would be inclined to spend less time in the store	18%	23%	14%	26%	23%	18%	16%	16%
I wouldn't return to the store for any future purchases	7%	9%	6%	7%	6%	5%	4%	11%
I would advise others not to shop there	5%	6%	4%	3%	3%	3%	4%	6%
None of these	47%	43%	50%	36%	40%	46%	53%	49%
Don't know	13%	11%	15%	11%	12%	17%	11%	13%



MERGED RESULTS

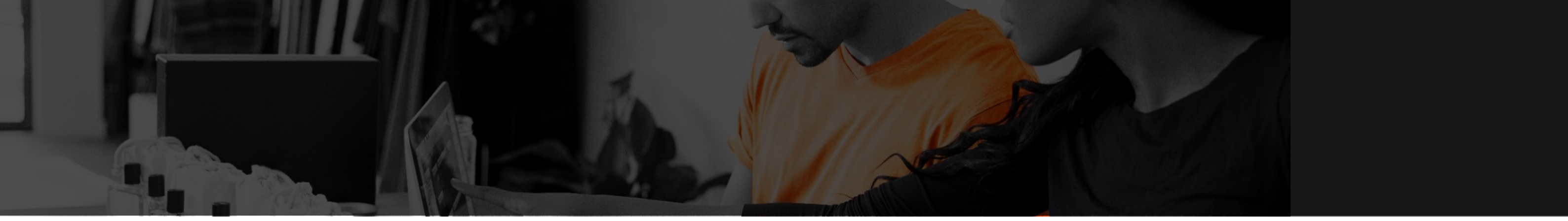
Q1. For the following questions by "behind", we mean that this style of shopping is slow in developing and expanding customer experiences (e.g. in customer service, personalising their services/ customer experience etc.). By "ahead" we mean that this style of shopping is in the lead in developing and expanding customer experiences. In general, do you think the in-store retail experience is behind, ahead or equal to the online shopping experience? (Please select the option that best applies)

	Total	Country		
		Germany	UK	France
I think that the in-store retail experience is ahead of the online experience	36%	47%	27%	29%
I think that the in-store retail experience is equal to the online experience	27%	26%	27%	31%
I think that the in-store retail experience is behind the online experience	21%	14%	24%	25%
Don't know	16%	13%	21%	15%

	Age					Gender	
	18 - 24	25 - 34	35 - 44	45 - 54	55+	Male	Female
I think that the in-store retail experience is ahead of the online experience	28%	31%	31%	35%	41%	38%	34%
I think that the in-store retail experience is equal to the online experience	29%	29%	29%	27%	26%	25%	30%
I think that the in-store retail experience is behind the online experience	26%	22%	22%	19%	19%	21%	20%
Don't know	16%	19%	18%	18%	14%	16%	17%

Q2. For this question, we would like you to think about the most recent time you deliberately went into a physical retail store to make a purchasing decision. Regardless if you purchased an item or not...Which THREE, if any, of the following BEST describes why you chose the in-store experience over an online one on this occasion? (Please select your top three options. If you have never deliberately chosen to go in-store over online, then please select the 'Not applicable' option)

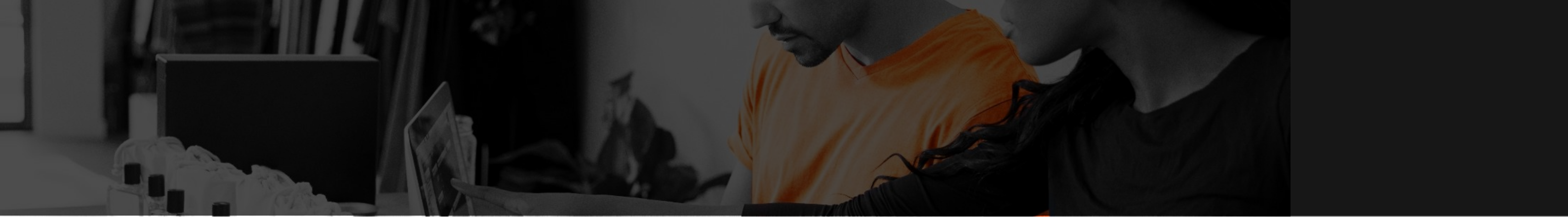
	Total	Country		
		Germany	UK	France
I wanted to get better expertise/ knowledge from staff on products	21%	27%	16%	20%
I wanted to browse items to buy online later	16%	14%	17%	19%
I wanted to browsing items to buy in-store later	23%	23%	21%	23%
I wanted to physically purchase the item(s) after browsing online/ in-store	24%	10%	36%	30%
I had more confidence in the store's stock availability	21%	23%	18%	22%
I wanted to see live demos/ the product(s) in real-life	26%	26%	25%	25%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	34%	32%	34%	38%
None of these	10%	10%	11%	6%
Don't know	7%	8%	6%	8%



	Age					Gender	
	18 - 24	**25 - 34**	**35 - 44**	**45 - 54**	**55+**	**Male**	**Female**
I wanted to get better expertise/ knowledge from staff on products	18%	18%	15%	20%	27%	23%	20%
I wanted to browse items to buy online later	24%	22%	19%	15%	12%	17%	16%
I wanted to browsing items to buy in-store later	22%	20%	19%	22%	25%	23%	22%
I wanted to physically purchase the item(s) after browsing online/ in-store	25%	28%	25%	22%	23%	23%	25%
I had more confidence in the store's stock availability	15%	19%	19%	21%	23%	22%	20%
I wanted to see live demos/ the product(s) in real-life	27%	29%	23%	26%	24%	25%	26%
I prefer having a physical point of sale (i.e. interacting with a sales assistant in the store)	22%	26%	25%	32%	44%	34%	34%
None of these	9%	8%	10%	12%	10%	11%	9%
Don't know	11%	8%	12%	7%	4%	7%	8%

Q3. Thinking specifically about shopping within physical retail stores...Which THREE, if any, of the following attributes would you most like to see/ have access to whilst shopping in-store? (Please select all up to three options)

	Total	Country		
		Germany	**UK**	**France**
Electronic pricing (i.e. price tags that adjust throughout the day)	14%	15%	12%	16%
Real time stock availability (i.e. up to date details on whether the product is available in that store)	40%	41%	40%	37%
Self-service ordering stations (i.e. the ability to order from another store or warehouse)	15%	13%	18%	14%
Augmented reality (i.e. being able to see the product in a real-life situation, e.g. Ikea's AR app)	12%	13%	7%	18%
Self-service payment apps (i.e. being able to scan your shopping as you go to avoid queuing at the tills at the end)	19%	15%	22%	21%
Interactive maps of the store	10%	10%	10%	11%
Special Guests/ live experiences (e.g. celebrity chefs doing cookery demonstrations or book signings)	6%	6%	5%	6%
Free Wi-Fi	20%	18%	22%	21%
Smart interactive mirrors (i.e. mirrors that can scan clothes tags, allow shoppers to alert sales assistants, offer user-specific suggestions etc.)	7%	6%	6%	12%
None of these	23%	23%	25%	18%
Don't know	11%	11%	10%	12%

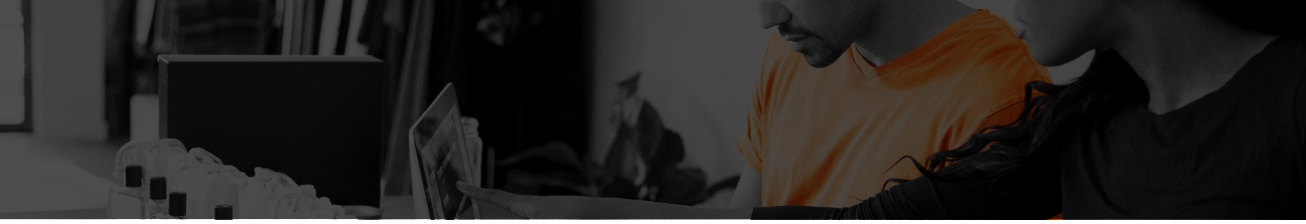


	Age					Gender	
	18 - 24	25 - 34	35 - 44	45 - 54	55+	Male	Female
Electronic pricing (i.e. price tags that adjust throughout the day)	15%	15%	12%	13%	13%	16%	12%
Real time stock availability (i.e. up to date details on whether the product is available in that store)	41%	43%	40%	39%	38%	40%	40%
Self-service ordering stations (i.e. the ability to order from another store or warehouse)	21%	21%	18%	15%	10%	14%	16%
Augmented reality (i.e. being able to see the product in a real-life situation, e.g. Ikea's AR app)	12%	12%	11%	12%	12%	12%	11%
Self-service payment apps (i.e. being able to scan your shopping as you go to avoid queuing at the tills at the end)	27%	24%	20%	20%	14%	19%	19%
Interactive maps of the store	12%	11%	9%	10%	9%	12%	8%
Special Guests/ live experiences (e.g. celebrity chefs doing cookery demonstrations or book signings)	6%	7%	6%	6%	5%	5%	6%
Free Wi-Fi	32%	26%	22%	19%	15%	20%	20%
Smart interactive mirrors (i.e. mirrors that can scan clothes tags, allow shoppers to alert sales assistants, offer user-specific suggestions etc.)	13%	9%	8%	6%	5%	8%	6%
None of these	10%	15%	17%	23%	30%	22%	24%
Don't know	10%	9%	13%	11%	11%	10%	12%

Q4. For the following question by personal details, we mean information such as your name, email address, date of birth etc. Still thinking about shopping within a physical retail store...For which, if any, of the following services would you be willing to provide your personal details for in order to gain access to? (Please select all that apply)

	Total	Country		
		Germany	UK	France
Personalised promotional notifications on my phone/ similar device	18%	13%	17%	26%
Free Wi-Fi	18%	13%	21%	21%
Self-service checkout via my phone/ similar device	18%	15%	19%	24%
None of these	51%	58%	51%	40%
Don't know	11%	10%	10%	12%

	Age					Gender	
	18 - 24	25 - 34	35 - 44	45 - 54	55+	Male	Female
Personalised promotional notifications on my phone/ similar device	23%	23%	21%	16%	13%	17%	18%
Free Wi-Fi	36%	22%	22%	16%	11%	19%	17%
Self-service checkout via my phone/ similar device	32%	27%	21%	16%	11%	20%	16%
None of these	28%	39%	40%	53%	66%	50%	53%
Don't know	12%	11%	15%	10%	8%	10%	11%



Q5. For this question, please imagine that whilst shopping in a store that advertised "Free Wi-fi in-store", you were experiencing poor Wi-Fi connectivity... Which, if any, of the following statements BEST describes how you would feel/ react? (Please select all that apply)

	Total	Country		
		Germany	UK	France
I would feel a lack of trust in the brand	13%	12%	13%	14%
I would abandon my visit and go to another brand's store	7%	8%	5%	9%
I would be inclined to spend less money in the store	9%	9%	9%	9%
I would be inclined to spend less time in the store	17%	18%	15%	16%
I wouldn't return to the store for any future purchases	6%	7%	4%	7%
I would advise others not to shop there	4%	5%	3%	7%
None of these	52%	47%	60%	48%
Don't know	12%	13%	10%	13%

	Age					Gender	
	18 - 24	25 - 34	35 - 44	45 - 54	55+	Male	Female
I would feel a lack of trust in the brand	16%	16%	13%	12%	11%	14%	11%
I would abandon my visit and go to another brand's store	7%	8%	7%	6%	7%	8%	6%
I would be inclined to spend less money in the store	12%	12%	10%	8%	7%	11%	7%
I would be inclined to spend less time in the store	22%	20%	17%	16%	15%	19%	14%
I wouldn't return to the store for any future purchases	6%	5%	5%	3%	8%	7%	5%
I would advise others not to shop there	4%	4%	3%	3%	5%	5%	3%
None of these	42%	47%	50%	56%	56%	48%	56%
Don't know	13%	11%	15%	11%	12%	11%	13%

ABOUT THE REPORT

About the research

All figures, unless otherwise stated, are from YouGov Plc.

Total sample size was 5,245 adults in the UK (2,057), France (1,069) and Germany (2,119). Fieldwork was undertaken between 6th - 14th December 2018. The survey was carried out online. The figures have been weighted and are representative of all adults (aged 18+) in each individual market.

About Ruckus Networks

Ruckus Networks, an ARRIS company, is redefining connectivity around the globe. With our partners, we build secure wired and wireless access networks for organizations that place a premium on connectivity experiences for end users as well as simplicity. Follow Ruckus on Twitter, Facebook, LinkedIn, Instagram, YouTube and subscribe to our blog.

About ARRIS

ARRIS International plc (NASDAQ: ARRS) is powering a smart, connected world. The company's leading hardware, software and services transform the way that people and businesses stay informed, entertained and connected. For more information, visit www.arris.com.

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